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Industrial Decline in an Industrial Sanctuary Portland's Central Eastside Industrial District, 1981-2014

by

Allison Jones

A research paper submitted in partial fulfillment of the requirements for the degree of

Master of Science in Geography

Research Committee: Martha Works, Chair David Banis Tom Harvey Hunter Shobe

Portland State University 2014

ABSTRACT

This study examines the evolution of the industrial landscape of Portland, Oregon's Central Eastside Industrial District (CEID) from the initial declaration in 1981 as an 'industrial sanctuary' to the present day. The study recreates the historical landscape of 1981, mapping historical land use data from archived Sanborn maps in GIS. This was then compared to the current landscape of 2014, wherein data gathered from field visits, and online, public land use databases was mapped using GIS.

This paper addresses the recent transformation, looking at patterns within the physical and functional realm; and observing how these changes have influenced the character of the neighborhood.

ACKNOWLEDGEMENTS

I would like to express my appreciation to my advisory committee: Thomas Harvey (in memoriam), David Banis, Martha Works, and Hunter Shobe. I never got to thank Tom for giving me the original idea to examine the lack of industrial nature within the so-called 'industrial district'. While the Central Eastside was a slight interest of mine, Tom introduced me to a new perspective that I had never considered before. The district's transformation has slowly become a preoccupation of mine, and it will always remind me of Tom.

My gratitude also goes to David for seamlessly picking up, where Tom and I left off. Your support was invaluable. I could not have completed this without the summer term meetings, after-work updates, and consistent check-ins that you arranged which kept me on track and motivated.

Many thanks also go to Martha for agreeing to sit on my committee even after retirement. I am also very grateful for the timely support that Hunter has provided.

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INTRODUCTION TO CENTRAL EASTSIDE INDUSTRIAL DISTRICT

The Central Eastside Industrial District (CEID) was once a neighborhood that was filled with manufacturing and industrial work, as well as food distribution and production. Warehouses and storage facilities were a significant part of the district's beginnings, and the area provided a variety of blue-collar jobs. Today, the industrial uses have changed, with cleaner and lighter wholesalers, and small design shops. An increasing number of exclusive commercial services, including fine dining restaurants, multi-media production, as well as high-end retail have begun moving into the CEID. While at times subtle, this transition is changing the landscape within the Central Eastside Industrial District, and its land use characteristics (City of Portland, 1991).

In some parts, the physical appearance of the district still resembles an 'industrial sanctuary' however, in others it is blatantly clear that this neighborhood is changing (Gerhardt 1984; Historic District Guideline Committee 1994, 14). By using a reconstruction of the land use history and examining the central core within the CEID, it is possible to see the type of transition that is occurring within the Central Eastside Industrial District. Older, maturing buildings are being repurposed and recycled for new land uses. Often the physical infrastructure may be slower to change than the land use type; however, the transformation is creating a "new functional identity that reflects a new generation of uses and users and the industrial landscape is becoming 'industrial chic'" (Cohen 1998, 2).

Research Objectives

This paper highlights the changes within the Central Eastside Industrial District and how it may represent processes such as, the recycling of buildings, a transition to a new economy, and the possibility of industrial displacement. The paper provides an understanding of the present transition and both the past and present of the Central Eastside Industrial District landscape, as it continues to evolve within a post-industrial city. In addition, at a larger scale, the transition acts as an illustration of what is occurring in many other post-industrial cities around the nation. By creating a baseline of the historical landscape one can compare it to the current landscape and examine the patterns within the physical and functional realm and make observations about how these changes have influenced the character of the neighborhood.

In order to achieve that one must characterize and map the core of the Central Eastside Industrial District as it is exists today and as it was in the past. In doing so, one can identify the current land use issues that are playing a role in the area's transformation. There is a particular focus on the influence of recent development and the influx of upmarket businesses as well as conversions of old industrial buildings into "creative spaces" because of the apparent displacement these business types bring.

The study consists of two parts. The first part examines the historical landscape of 1981 within a central portion of the Central Eastside Industrial District, during the time of the declaration of the Industrial Sanctuary. The second part examines the contemporary landscape of the same area, (looking at a broader scale, including the implications of the land use changes) and then compares the two.

Literature Review – Urban Morphology and the Politics of Dystopian Landscapes

The field of urban morphology emerged in the 19th century led by academics from German-speaking countries (Whitehand 2007). By the 1930s, British geographers began to contribute to the literature, and in the 1960s an academic field of urban morphology had developed within the United States (Cohen 1998).

During the mid-century, a British academic, A.E. Smailes, criticized the methods of urban geographers at the time. He believed there was a "general inadequacy of the treatment of towns in geographical writing" (Smailes 1955, 99). Smailes called for a greater emphasis on examining the transitions of landscapes arguing, "most of the extensive tracts that are now townscape have been produced by the transformation of what were previously parts of the rural landscape"(Smailes 1955, 100). He emphasized the importance of buildings and argued that field surveys would be beneficial to those studying urban morphology: they can help by gathering data on the "ugly bits of the landscape" that shape the reality of the townscape (Smailes 1955, 100).

In 1960, M.R.G. Conzen added to the field of urban morphology with his town-plan analysis of Alnwick, Northumberland. Conzen's thesis argued that building forms were expected to follow demand which then reflected the town-plan. Conzen reasoned that the "geographical character of a town is determined by economic and social significance" (Conzen 1960, 3). Conzen also focused on urban land use, and "emphasized the importance of older features in the current urban landscape" (Cohen 1998, 18). Some argue that Conzen's ideas shaped the field of urban morphology significantly (Cohen 1998).

Though notable, Conzen's theory is somewhat narrow in focus. While building form can often indicate a changing landscape, it does not always explain a neighborhood transformation, as a change in a building's land use does not necessarily require a change in the building's

physical appearance. The photos in Figure 1 demonstrate this. The far left historical photo shows the Rinella Produce building during the 1920s, which at the time was a produce distribution center within the Central Eastside Industrial District. The photo on the far right from 2014 shows no change in building form, but there is a clear land use change. A café now occupies the far left side of the building and a hot dog stand sits in the far right corner of the building. The photo in the middle was taken just a year before in 2013, which has neither café nor hot dog stand, showing how the quick the land use change has occurred.

The second combination of photos in Figure 2 shows an industrial warehouse and paper distribution center from 1941. While the building still stands today, the function of the building is completely different; currently, it operates as an art, film, and music production facility.



Figure 1. Far left: Rinella Produce, 1920s. SE 3rd and Alder (looking North) (Oregon Historical Society, 1920s)

Middle: Rinella Produce, 2013. SE 3rd and Alder (Jones, 2013)

Far right: Rinella Produce with added café and hotdog stand, 2014. SE 3rd and Alder (Jones, 2014)



Figure 2. Left: The Portland Paper Box Company, 1941. 226 SE Madison (Oregon Historical Society, 1941)

Right: Audio Cinema, 2014. 226 SE Madison (Jones, 2014)

Nearly fifteen years after Conzen's work, J.W.R. Whitehand argued that urban morphologists were putting too much emphasis on the physical landscape as evidence of change. He called for geographers to pay more attention to the politics at hand, and those that influence them, socially and economically, writing "urban forms are, after all, a direct outcome of processes and in a real sense the embodiment of the attitudes pertaining at the time" (Whitehand 1977, 402). Whitehand stressed that it is important to understand how and why an area evolves and the manner in which it does, in particular questioning what the forces that precipitated the development pattern. Whitehand is known to have further developed his theory looking at how the landscape changes "in response to a combination of capital availability / land value" through incorporating urban economics into the equation (Cohen 1998, 19).

Whitehand's work pushed the limits of urban morphology, influencing the field as a whole. While broad in theoretical approach, there are general tenets that the community of researchers agrees upon. First is that the urban landscape can be read, and is composed of the

basic elements, buildings and their related spaces. The second is that urban form is a matter of scale and can be interpreted at different levels of resolution. Lastly, "urban form can only be understood historically since the elements of which it is comprised undergo continuous transformation and replacement" (Moudon 1997, 7).

Despite the value of urban morphological studies, it is "rarely studied in contemporary cities" (Moudon 1997, 7). This may be due to lack of data, or difficulty in approach. One challenge to using the morphological approach to study an industrial landscape within a post-industrial city is the assumption that there is a physical change which represents the neighborhood's evolution.

Another limitation to using Conzen's morphological approach is "that it does not address perceived change or changes in the 'character' of an area" (Cohen 1998, 22). These qualities can often be difficult to assess, but are just as important to the evolution of a neighborhood as the physical components. Geographer Don Mitchell addresses the element of character when describing "the duality of the 'landscape' – as both physical and mental" (Mitchell 2008, 31). Mitchell argues that in order to understand a landscape and its elements, one must conduct an historical analysis which looks into the "changing of social structure and laws, ethnographic, or other similar methods, and even theory" (Mitchell 2008, 31). Mitchell argues that relationships of power help create the surrounding physical landscape, and that the physical appearance carries much more meaning than just its physical representation.

As Whitehand and Mitchell explained, the politics play an important role in shaping a landscape. Opinions of how a landscape looks or feels shape the policies enacted by governing officials (Johnson and Niemeyer 2008). What planners and architects refer to as "urban voids",

"dead zones", and "wastelands", typically in the form of train yards, harbors, or industrial lands, will often be targeted for redesign and redevelopment (Doron 2000, 248).

Doron, however, questioned whether these terms: "dead zone", "wasteland", or "void" are appropriate. He questioned whether or not these terms "adequately describe [such] places" (Doron 2000, 248). Ironically, Doron pointed out that there is a lack of certainty in defining these areas amongst the planners themselves.

Typically, investigations of these derelict lands are done by planners and policy makers who rely on a view from a distance – using maps and photographs. They rarely consider people who actually live near the area. Doron noted a questionnaire in the publication *Urban Wasteland Now*, which was circulated to the citizens who lived around "derelict sites". According to the publication's results, 59% believed that the nearby 'wasteland' was an asset, providing informal and wildlife uses (Doron 2000, 249). Doron argued that the wastelands are not void of order; they just have a different order.

Doron's description of planners and architects in a battle against derelict landscapes is echoed in John Jakle and David Wilson's book, *Derelict Landscapes*. Throughout, the authors, who unsurprisingly are also urban planners, express their distaste for derelict landscapes writing, "derelict zones are disorderly in the sense that previous order is unraveling" (Jakle and Wilson 1992, 9). The authors believe that cities can reverse this dereliction through new investment and revitalization.

However, this action of revitalization is extremely contentious to those that find value in preserving the so-called derelict lands. Armstrong reasons in her article *Time, Dereliction and Beauty: an Argument for 'Landscapes of Contempt'* that urban voids and wastelands connect the past, present, and future. She argues that voids and wastelands allow for "innovative and

temporary uses" (Armstrong 2006, 117). Armstrong explains that although the "vast derelict industrial landscapes resonate with messages of failure" they can also be a lesson in changing; showing that which is inherent amongst humanity (Armstrong 2006, 117). The truth of the matter is that humans make waste.

This acknowledgement that derelict and dystopian landscapes are unavoidable is echoed by many. Edensor admits that "production always generates its negative, a formless spatial and material excess" (Edensor 2005, 833). Edensor as well as Nielsen were highly influenced by the work of Georges Bataille, who had "the idea that all systems excrete something, that homogenization has its limits, and that the world has to be understood as having both high and low parts" (Nielsen 2002, 55). In this context the low parts would be the industrial landscape that invariably comes with the industrial and manicured lands (Berger 2008).

Recognizing that derelict, dystopian lands are inevitable where humans live is becoming an accepted concept amongst planners, landscape architects, and geographers. However, the acceptance of them in their derelict form is still a long way out. This study of the Central Eastside Industrial District aims to bring more attention to the significance of the urban industrial landscape, through providing a historical geographical analysis of the area's changing physical and functional morphology, and by applying an interpretation that examines the "changing social structure". Through this analysis, perhaps more awareness can be passed on about the value that comes with the perceived "ugly bits" and low parts of human civilization.

History and brief background of the CEID

"One of Portland's oldest industrial areas", the Central Eastside Industrial District is located just east of downtown Portland, Oregon on the east side of the Willamette River (City of Portland Bureau of Transportation 2009, 1). The district is bounded by I-84 to the North, SE 12th Ave to the East, Powell Boulevard to the South and the Willamette River to the West (Gerhardt 1984). There are 340 blocks within the Central Eastside Industrial District which are primarily based on a 200 foot by 200 foot block pattern, which is a signature of Portland's older neighborhoods. The district is conveniently located near the state's and region's primary interstate highways, both north-south (I-5) and east-west (I-84) (Figure 3).

The CEID is served by all major truck lines in addition to three railroad companies (Gerhardt, 1984). Despite its close-in, central location and proximity to interstate highways, the district as a whole is fairly difficult to access. Traffic is routed over and around the district by freeways, bridges, as well as on-ramps and off-ramps. One has to be very intentional in getting to the CEID, as there is no easy path that leads to the neighborhood which can be a source of frustration for the actual industries in the area.

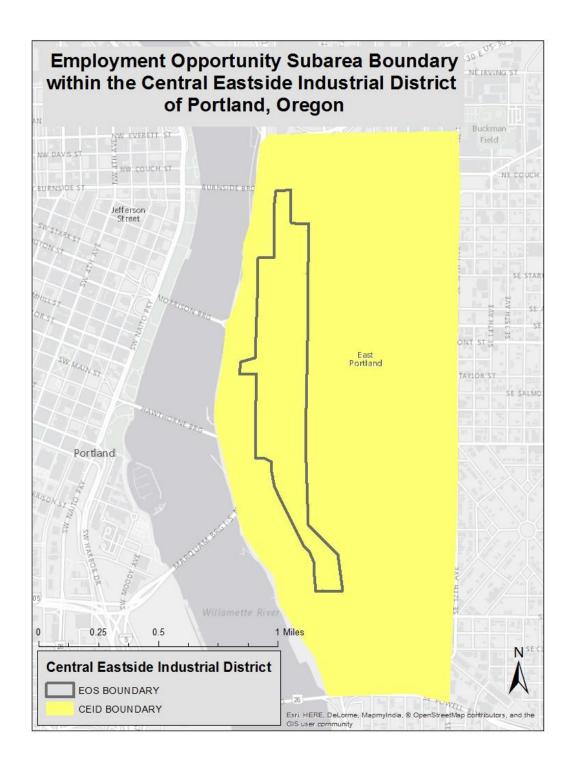


Figure 3. Outline of the CEID and EOS boundaries

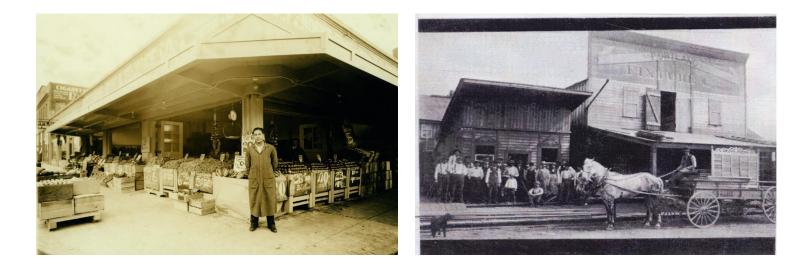


Figure 4. Left: Independent Fruit and Produce, 1932. 705 SE Union (MLK) Ave (Oregon Historical Society, date unknown)

Right: Mill and Fixture Co, 1890. NE Corner of SE 7th and Morrison (Oregon Historical Society, date unknown)

In the late 1890's, local established businesses included brick making, hardware and fixture stores, as well as stands wherein farmers sold their locally grown produce (Figure 4). The first railroad to California was built in the Central Eastside in 1869, with the cooperation of Benjamin Holladay and Central Pacific Railroad (City of Portland, 1991; Oregon Historical Society, 2009).

There was a significant amount of growth from 1890 to 1930 within the CEID, as Portland extended its city limits east, to SE 24th Avenue in 1891. Union Avenue (now Martin Luther King Jr. Boulevard) and Grand Avenue were main thoroughfares where horses, carriages, and pedestrians filled the streets. As streetcars were replaced by automobiles in the 1920s, streets were widened, making the area more viable for commercial business. The economic boom after World War II created an increased demand for industrial land, and many of the older Victorian homes between SE 7th and SE 12th were replaced by industrial businesses in a systematic redevelopment designed for economic expansion. The increased usage of automobiles also impacted the building design, and there was an increase in auto-related businesses and garages within the district (City of Portland 1991, Historic District Guideline Committee 1994).

By 1984, the CEID was the second largest industrial district in Portland, "after the much larger and lower density Northwest area" (Gerhardt, 1984, 11). It was declared an "Industrial Sanctuary" by the city of Portland in 1981 through the Industrial Sanctuary Policy, a feature of the first Comprehensive Plan in 1980 (Gerhardt 1984, Historic District Guideline Committee 1994, 14). This policy, while referred in the City's published documents failed to declare or enact any standards or regulations directly. During the 1980s and 1990s, the city's governing officials would often discuss the topic of protecting the industrial sanctuary and its zoning, noting that "light industry, distribution / warehousing, and transportation are important components of the district" (Historic District Guideline Committee 1994, 22). One can assume that at this time the city was, in some sense, acknowledging that the industrial land of the Central Eastside was in danger of being repurposed.

"Unsightly and Underutilized" – A City's Call for Change to the Zoning Code

Regardless of its industrial value, the City of Portland's planning agency, the Portland Development Commission (PDC), described the district "as an area of blight and disinvestment" and designated the Central Eastside as an urban renewal district in 1986 (Portland Business Journal 2003, 1). Documents published by the City of Portland indicate that some within the City also found the area displeasing, noting "while the appearance of the CEID has improved in recent years, underutilized buildings, outdated and large signs, and evidence of crime and homelessness have negatively affected the image" (City of Portland 1991, 13). Despite being split into factions on whether the industrial land held value or not, the City of Portland continued to declare the area "as an industrial sanctuary while improving freeway access" (Historic District Guideline Committee 1994, 15). However, this policy would later lead to significant zoning changes within the district.

Over time, the City of Portland's support for protecting the Industrial Sanctuary declined. In 2003, the City modified the zoning within the CEID to accommodate what was referred to as a "new urban economy", or the creative class (City of Portland Bureau of Planning, 2003, 1). This managed change allowed the city to relax on the "industrial nature" requirements, creating more flexibility, by allowing businesses in digital production, retail, and office uses to move in (City of Portland Bureau of Planning, 2003, 1). This shift in zoning policy sparked a resounding response from Peter Stark, past president of the Central Eastside Industrial Council, who at the time argued that "major commercial or residential projects in the industrial sanctuary could kill off incompatible [existing industrial] businesses" (Portland Business Journal 2003, 2). Stark added that "If we don't stand up and scream and yell, we're going to turn into another Pearl District" (Portland Business Journal, 2003, 2).

The Pearl district, a small neighborhood that sits in the northwest quadrant of Portland – was historically an industrial neighborhood which housed warehouses and rail yards; however, in the late 1990s the Portland Development Commission declared it an Urban Renewal Area, in the process overseeing and financing the development of high-rise, mixed-use residential complexes (The Pearl District Neighborhood Association 2014). The Pearl's redevelopment was controversial. While some believed it to be a product of revitalization others argued that it was a strong case of gentrification, wherein "less well-to-do residents and businesses have been, and continue to be, forced out of the area by those able to afford the costs" (Jones 1999, 16).

Not unlike the Pearl, the Central Eastside Industrial District is also going through a transition of redevelopment. Zoning modifications allowing flexibility towards office use continued through the early 21st century, with the most recent occurrence in 2006. At this point in time, the Bureau of Planning and Sustainability and the City of Portland established the Employment Opportunity Subarea (EOS) which encompassed the central core of the Central Eastside Industrial District (Figure 3). By crafting an amendment to the Central City Plan, the city was able to amend the City Zoning Code.

The new Employment Opportunity Subarea is bordered by SE 3rd Avenue to the east, SE Water Ave to the west, East Burnside to the North, and SE Caruthers to the south. This subset of the industrial sanctuary was designed by the City, with the intention to draw businesses such as "software development, web design, and data processing" (City of Portland Bureau of Transportation 2009, 1). Because the EOS is such a large portion of the CEID and at the central core of the district, it is a good location to study the neighborhood's transition. Therefore, the EOS was selected for examination in this study.

Description of Study Area

The EOS study area covers about 57 core blocks of the Central Eastside Industrial District, forming a central rectangular shape narrowing on the north and south ends. Figure 3 shows both the Central Eastside Industrial District outline as well as the boundaries of the Employment Opportunity Subarea. The EOS boundary protrudes out, somewhat oddly, on the west side, for just a square block, in an otherwise linear boundary running flush with Water Avenue. Here, where the boundary juts out, it is clear that the city intended to incorporate the East Bank Commerce Center, (once the Auto Freight Transport Building of Oregon and Washington) into the economic development plan. This building, now on the National Register of Historic Places, was once an industrial center which received a variety of cargo from ships, rail lines, and trucks. Today, it houses one of Portland's most expensive restaurants, Clark Lewis, an upscale salon, and high end office space for tenants such as the television series "Portlandia" (Yelp 2012).

The EOS, established by the City of Portland in 2006, is zoned IG1. IG1 is intended to allow retail sales and service, traditional office space, and industrial office space. Other permitted uses include any kind of development for Portland State University and open space zones designed for coffee shops, benches, and art (City of Portland 2014). This flexibility in zoning, which allows purposes other than industrial work in an industrial sanctuary, can often act as a catalyst to substantial change. This initial change was seen in the study area with the conversions of industrial warehouses to dance clubs such as the B-Complex at 320 SE 2nd in the early 2000s, then by Branx and Rotture in 2006, and then Refuge at 116 SE Yamhill in 2009.

Although the Central Eastside was one of Portland's warehousing and manufacturing districts for many decades, today the character is slowly changing, and the area is becoming

known for a mix of different land uses. The area is predominantly populated by smaller, (less than 6,600sq ft.) older industrial buildings built before 1950, throughout the core of the study area. Toward the northern and southern edges the landscape becomes increasingly mixed and includes larger, and newer, warehouses that were built between the years 1950 - 2012. Various sized office like buildings sit within the very center of the study area between Salmon St and Belmont St. Figure 5 depicts the age distribution of the buildings within the study area, mapping which part of the century each building was built.

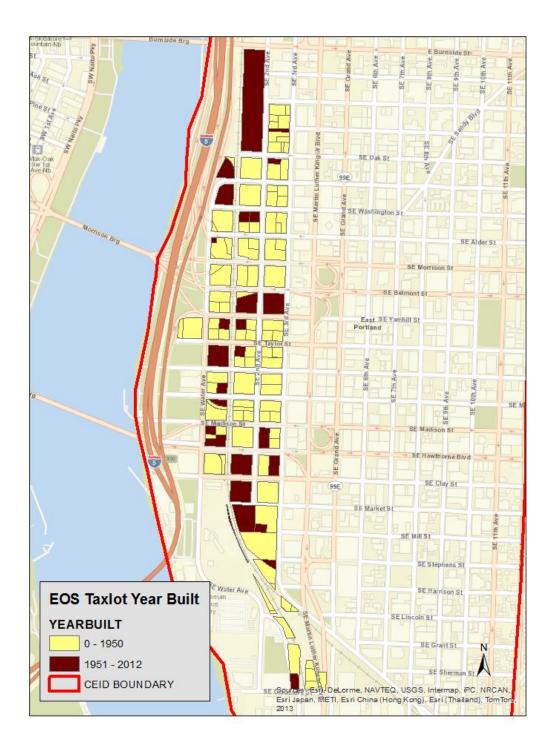


Figure 5. Dates of original construction within the study area.

During the years of 2012-2014, the southern end of the study area began experiencing a significant amount of redevelopment due to the construction a new pedestrian bridge, the 99E overpass, the Milwaukie light rail line as well as the creation of an eastside streetcar line. The construction related to the light rail line in particular forced the removal of many industrial buildings (Figure 6), thus displacing many well-established industrial businesses to other locations.



Figure 6. Left: Moving Sign, Evidence of Industrial Displacement, 2013. SE 7th and

Division

Right: Warehouse demolishment for light rail installation, 2013. SW Corner of SE 7th

and Division





a.





Figure 7. Redeveloped warehouses offering "Creative Space" for lease, 2014. a.: 1510 SE Water Ave. (previously PGE's Hawthorne building), b.: SE 2nd and Clay (previously Taylor Electric), c.: 134 SE Taylor (previous warehouse), d.: 240 SE 2nd (previous warehouse).

Redevelopment of older, existing buildings has also been occurring throughout the study area. Two of the more prominent examples are on SE Water Ave and Clay (Figure 7a) and SE 3rd and Clay (Figure 7b). Both of these buildings were large industrial buildings belonging to Portland General Electric and Taylor Electric but have since been purchased by developers for investment opportunities. Other examples can be seen throughout the study area (Figures 7c, 7d).

The terrain of the Central Eastside study area is mostly flat, with a gentle rise on the eastern edge. In some parts the streets of the Central Eastside study area are considered "gritty" (Theen 2014). There are numerous areas with litter, graffiti, chain-link fencing and a limited number of trees (Figures 7 and 8). There is minimal pedestrian traffic, particularly within the central core of the study area, and the sidewalks are considered substandard (City of Portland Bureau of Transportation 2009). On the other hand, vehicular traffic is heavy – especially on the main corridors: Stark Street, Water Avenue, Madison, Hawthorne, and the southern end of SE 3rd. Truck traffic is particularly heavy within the central core.



a.











d.



Figure 8. a. looking North on SE Water Ave (cement recycling plant on left), b. unsanctioned graffiti covers dumpster on SE 2nd and Oak, c. tree-lined SE Water Ave looking south towards OMSI, d. converted train cars with sanctioned graffiti, e. sandwich board sign for Champagne bar, f. Dirty Bridge Bistro at 210 SE Madison.

However, juxtaposed nearby, where recent redevelopment has occurred, the streets are tree lined, with well-manicured landscaping, new bio swales, and brand new sidewalks. Old train cars that have been converted to web design office space are decorated with sanctioned, graffitiesque murals, wine bistros with names like "Dirty Bridge" compete with champagne bars, and fine dining restaurants fill the rehabilitated warehouses (Figure 8).

Much of the redevelopment has escalated with the recovery of the economy since The Great Recession of 2008. Ironically at the foot of both the Hawthorne and Morrison bridges, an art installation of weathered steel and iron has been erected (in 2012) "to evoke the neighborhood's industrial past", a clear sign of the future of the area (Figure 9) (Beaven 2012, 1).



Figure 9. Weathered steel and iron installation at SE Hawthorne and MLK

The streets of the CEID are host to a wide variety of individuals (Figures 10 and 11). During the weekday hours, one can spot day-laborers taking smoke breaks and frequenting the taco trucks nearby, in-between making deliveries. The end of the work day brings a different crowd, one of white collar consumers frequenting fine dining restaurants such as Clark Lewis, Produce Row Cafe, and Hair of the Dog brew pub. Musicians and dancers fill the clubs as the night takes hold, and peppered throughout, especially on the weekends, are artists of all sorts including photographers, skateboarders, marching bands, BMX riders, and musicians. People experiencing homelessness also either live or frequent the area regularly.



a.



b.





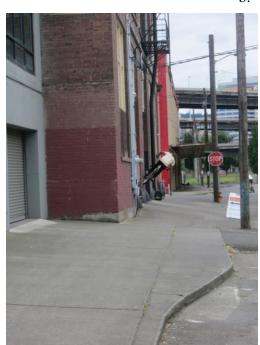


d.

Figure 10. a. Day-laborers, b. PDX Pop Now Festival attendees, c. Red Door Car Meet,d. Red Door Meet rules







d.

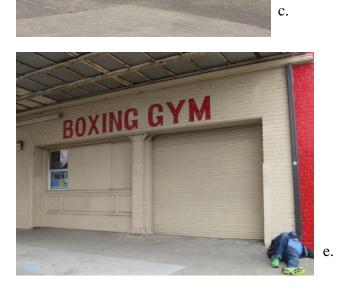


Figure 11. a. Boutique clothing shop window, b& c. local artists, d. BMX riders, e. people experiencing homelessness

RESEARCH METHODS

This study is comprised of two main parts: the first looks at the historical landscape of the Employment Opportunity Subarea, a study area which is a sample of the Central Eastside Industrial District; and the second part, consists of depicting the contemporary landscape of the study area as it was in the spring and summer of 2014. The historical landscape section looks at the land use type of the study area during 1981, which is when the CEID was declared an industrial sanctuary by the City of Portland. The second section examines the contemporary landscape within the study area of the CEID, and gives a detailed depiction of how the neighborhood is viewed today, including current features that have resulted from recent transformations within the industrial landscape.

Sanborn Maps

The primary source of information in reconstructing the historical landscape of the Central Eastside Industrial District was the most recent published version of the Sanborn Maps. These maps were produced in 1968 and updated through 1998. Originally intended for fire-insurance estimating purposes, these large-scale plat maps show parcel-specific information about buildings, land use types, as well as other details. The Sanborn Map Company started producing the first set of maps in the 1800s, and for decades, cities across the country commissioned the company to conduct surveys and produce the large atlases of maps (Cohen 1998).

The set of maps used for this particular study was Volume 7, which were donated to the City of Portland's Archives and Records Department by the land use section of the City of Portland's transportation department.

While today the Sanborn Maps do not serve the same original purpose, they are still considered one of the most comprehensive and accurate sources for historical data on urban areas

and development (Cohen 1998). Information about land use classifications, building footprint, and type of construction, as well as street, block, and lot configurations can be gathered from the maps. In addition, the maps also recorded the years in which buildings were constructed or remodeled, the names of the tenants, as well as building use.

Despite the many advantages to using Sanborn Maps, there are some limitations. The Sanborn Maps do not indicate whether there are multiple building tenants or uses – thus giving a more generalized description of the parcel at hand. Another limitation is that at times, the dates of building construction are missing and not provided. Thus, it is difficult to assess when the development occurred. One has to assume, that the land use reflects what the last recorded entry has noted, which is not always true.

Finally, it is not always certain whether a building is in use; partially vacant; or completely vacant. Sanborn Maps typically only updated parcel information when a new use supplanted an existing one, so it is difficult to assess the intensity of the industrial activity at the time, and whether or not industrial activity was already on the decline (Cohen 1998).

While the Sanborn Maps were quite helpful in reconstructing a historical look at the industrial landscape, they are not applicable to today's current landscape. The updating and maintenance of the Sanborn Maps ended in 1998, so other sources were used. In addition, to get parcel by parcel field information, the City of Portland's online interactive database, PortlandMaps, was used. This interactive website provides a wide variety of data on each parcel in the city including information regarding building footprint, zoning, as well as other details on the tax lot.

In addition to PortlandMaps, Google was used to find business websites, articles, or other supplemental information that could give information on the nature of the business type and building's use.

Field Surveys

Field studies initially began in the summer and fall of 2013, as I went on runs or bicycle rides through the area often. Being at ground level – and at a slower pace, I was able to see many changes occur. However much of the actual data collection was done in the spring and summer of 2014. Much of the industrial activity seemed to happen in categorical clusters, which will be discussed later on in the study.

In addition to collecting data on current land use, the field studies were also intended to identify indicators of change. Data collection began during the recovery period of The Great Recession, in which an economic upswing was occurring nationally as well as in Portland, Oregon (Economic Policy Institute 2012; Lee 2014; Young 2013). Consequently, the transformation of the CEID was occurring very quickly, and in parts was somewhat unpredictable. Within the past year of documentation, various forms of transformation have occurred within this "industrial" district. These include the removal and demolition of buildings, the creation and installment of both a street-car and light-rail line, building renovations which convert land uses, new construction, changes in signage to buildings, internal building subdivisions, increasing arts-related or exercise studios (i.e.: yoga, martial arts, 'creative spaces'), an increase in fine dining restaurants and food carts, roadway improvements, improved sidewalk conditions, street tree installations, new murals and litter / graffiti removal.

These indicators of change helped to guide my initial field work and later helped with the analysis of the overall transition that is occurring within the study area. All of my initial field

surveys were done either on foot or on bicycle, systematically working down block by block through the study area of the Central Eastside Industrial District. I made notes on a blank map that I had made, using Metro's individual taxlot information (RLIS 2014). The notes included the business type, name, the use of the site (if known by building signage). address confirmation, and other operational characteristics. I noted street activity, use of street trees or other types of landscaping, delivery activity, and any graffiti or litter that was visible. Often I would photograph the buildings, and in some occasions I was able to photograph changes to either the physical landscape or the building's use. Supplementary photographs that were provided to me by others, as well as Google Maps were also used for studying land use change.

In cases where the land use was not visible through field work, I would use Google Maps, or PortlandMaps to search for the building's occupant, and other documents that would indicate what kind of business was present.

The final product of these field surveys was a comprehensive parcel-by-parcel set of data depicting the physical and functional characteristics of the Central Eastside Industrial District. Consequently, the Central Eastside Industrial District became an even more familiar area to me, one with a complicated and varied landscape which is undergoing significant changes.

Land Use Maps, Classification System

To better organize the land use data and present it cartographically, a single land use classification system was developed for both the historic and contemporary landscapes within the Central Eastside Industrial District. The classification system was created, with the objective that the categories needed to be specific enough to separate certain types of land uses, but at the same time aggregate those that are similar. While others have borrowed from the Standard

Industrial Classifications (SIC) system (Cohen 1998), I felt this was too detailed. For reasons of efficiency and simplicity, I created my own categories that were naturally apparent when reviewing the historical and current-day data. I developed 13 land use categories, which were divided into the following:

1.) Vacant: was used for lots that were undeveloped, or were a street at the time.

2.) Warehouse / Storage: dry storage facilities, which could house either food products such as salt or material goods such as furniture. This category also included the distribution centers of these types of goods including freight of non-food items, and truck yards.

 Food Distribution: buildings that provide cold storage for perishable food items and wholesale grocery businesses

4.) Sales: businesses of this type changed the type of goods sold from historical to modern day. During 1981, sales shops were mostly farm supplies, building supplies, and auto body supply shops. Current day sales shops are mostly restaurant supplies stores, building supplies stores, or wholesale merchandise.

5.) Parking included open air and covered parking lots.

6.) Light Manufacturing and Assembly: these lots had businesses that made items, and for example, milling, pillow manufacturing, pom-pom making, machine shops, pile-on assemblies.

7.) Mechanic Shop: truck, car, or machine repair.

8.) Restaurant / Bar / Nightclub: this category also includes event venues that can be rented out for parties.

9.) Temporarily Vacant: lots which have older warehouse buildings that are now in the transition phase of either being gutted and renovated; or just recently renovated with vacant space up for lease offering "Creative / Office / Retail space".

10.) Office Space: while mostly office space, these lots can also include schools, and museums.

11.) High-end Retail: these lots are specifically high-end retail, such as boutique fashion, collectibles, furniture, and wine.

12.) Personal Services for the Affluent: lots that have businesses which cater to the personal fitness of the individual, including Pilates studios, martial arts, and therapeutic services.

13.) Art Studios / "Creative Space": these lots are advertised as "creative space" which gives the tenant the flexibility to do just about anything. Most of these spaces are art studios, or custom design shops operating on a small scale.

The set of land use classifications covers a broad spectrum of activities to accommodate both historical and modern day uses. Since many of the current uses are new to the area, they are not represented in the historical map (Figure 12).

At times, assigning a single land use category to the current taxlots was difficult. Many buildings were occupied by several different business types with a variety of land uses as the facilities left behind have been subdivided into smaller work spaces with multiple tenants. In deciding which land use to assign to these types of buildings and taxlots, I made an effort to identify the dominant land use type or activity, either in terms of the area of the building

occupied, or in the prominence of the business type. Often the building's name and signage helped, which I would then research further online with PortlandMaps and Google Maps.

The process of the taxlot classification was not an exact science. In some cases taxlots and buildings had several unrelated business tenants; therefore the land use categories assigned to individual locations on the maps can be potentially misleading. However, the comparison of the two land use maps is intended to emphasize the change that has occurred over a period of time.

Unlike the current land use data, the historical taxlot information provided by the Sanborn Maps seemed to conveniently fall into eight natural categories. However, there was a challenge at times with interpreting handwritten notes; which indicated what kind of business was there at the time. Most importantly, it is unclear how accurate Sanborn was at the time. While it may not be exact, it can give a rather strong impression of what the landscape looked like at the time the Industrial Sanctuary was announced.

RESULTS

Characterization of an Industrial Sanctuary, 1981

When the City of Portland declared the Central Eastside Industrial District an Industrial Sanctuary, the majority of the District's businesses could be classified as industrial in nature. Figure 12 shows the reconstructed, historical landscape as the study area (within the CEID) was in 1981. Warehouses and food distribution centers dominated much of the landscape, and were concentrated heavily on the north and south ends of the study area. Within the central core, there were clusters of light manufacturing and assembly businesses paired with farm supply shops. Figure 13 shows the percentage breakdown of categorical business types. Sixty-three percent of the study area's taxlots were industrial in nature consisting of warehouses, food distribution centers, or businesses with light manufacturing and assembly.

While the preeminence of light industrial work is clear at the time of the declaration of the Industrial Sanctuary, one can also see that a small concentration of sales shops were located in the central part of the study area, situated mostly near SE 3rd. This small cluster might have been an indication of the transition that would occur over the years.

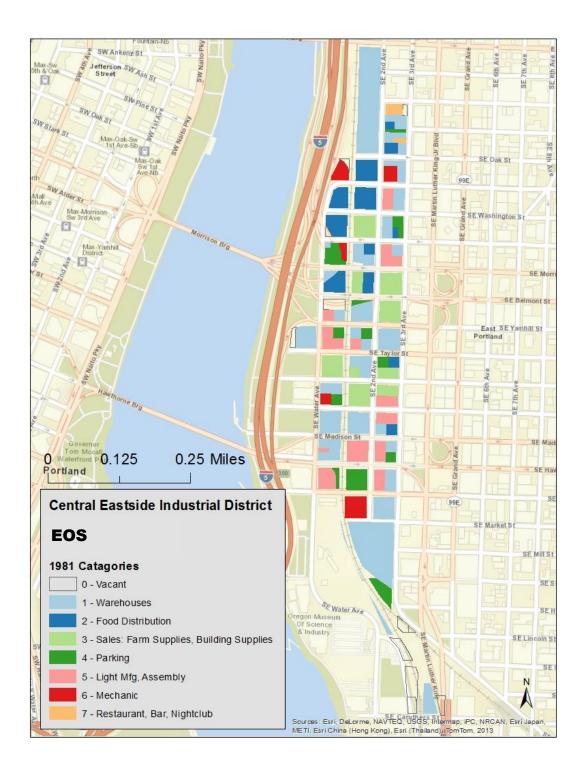


Figure 12. Reconstructed historical landscape of the EOS in 1981.

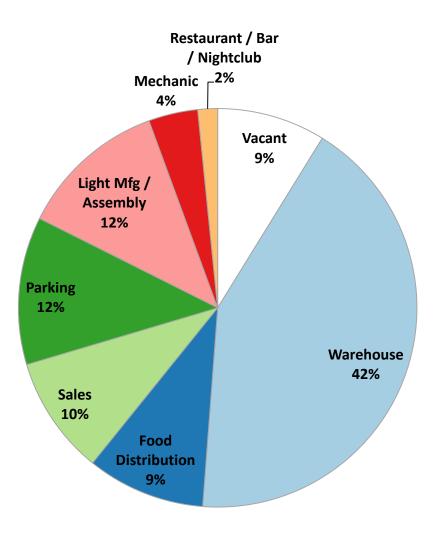


Figure 13. Percentage make-up of land use categories within the EOS in 1981.

Characterization of the Central Eastside Industrial District, 2014

Since the City's changes to the zoning code in 2003 and 2006, there has been a significant amount of land use change within the Central Eastside Industrial District. It seems that everywhere, buildings are being rehabbed, adapted, and reused. Following on the efforts of the Portland Development Commission to transform the neighborhood, developers have moved in and begun reshaping and redesigning the landscape. While the pace of redevelopment slowed considerably during the recession of 2008-2010, there has been a significant amount of change within the past few years. Over the past thirty three years, the number of businesses that are industrial in nature has declined by nearly half, and that pattern will continue. About ten percent of the district's parcels are under renovation, and many of these new buildings will transition into office and creative spaces. The landscape has become more mixed use, as the number of land use categories has jumped from eight to thirteen.

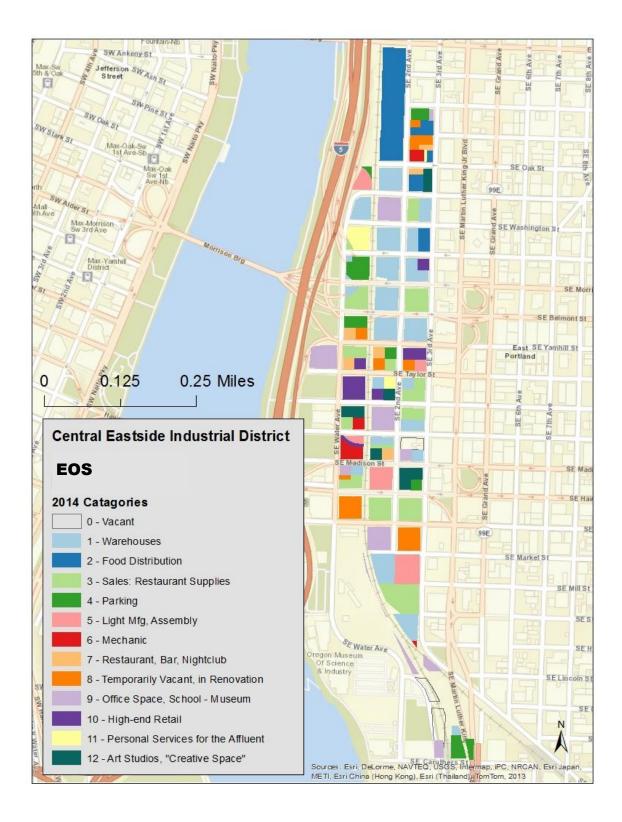


Figure 14. Reconstructed current day landscape of the EOS in 2014.

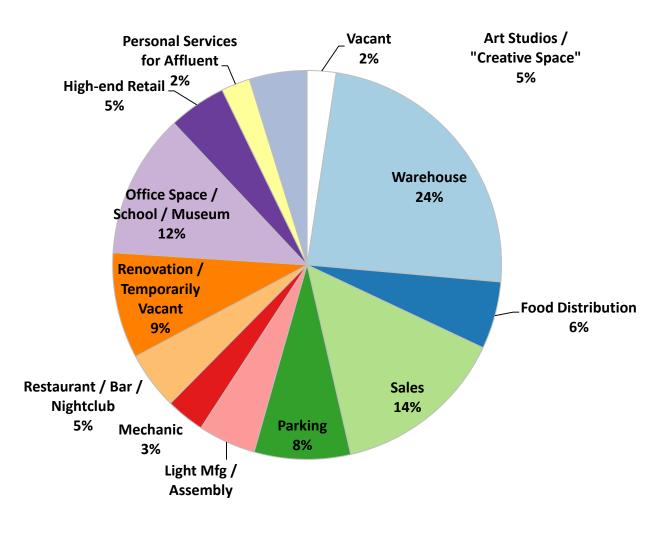


Figure 15. Percentage make-up of land use categories within the EOS in 2014.

DISCUSSION

Comparison of Findings

By mapping both the historical and current landscape, it is possible to analyze geographic patterns within the transformation of the CEID. Comparing Figure 12 to Figure 14, one can see the dramatic change of land use type that has occurred over time. The Central Eastside Industrial District has gone from a primarily industrial landscape to a more mixed-use landscape. In 1981, the district was dominated by the browns and greys of manufacturing and warehousing. But today in 2014, these uses have become a minority, remnants amidst a proliferation of office, high-end retail, "creative space" and buildings under renovation.

A comparison of the different business types between 1981 and 2014 shows the dramatic increase of new types of categories, increasing from seven categories in 1981, to twelve in 2014 (Figures 13 and 15). The industrial activity that made up the majority of the district in 1981 at sixty-three percent has been nearly cut in half, reduced to thirty-five percent. The new mixed-use landscape now dominates with fifty-two percent of the study area falling into a non-industrial category.

While few new buildings have been added to the district, changes have come in the form of recycling the existing infrastructure and changing the overall function of the neighborhood. While still named the Central Eastside Industrial District, it is no longer an *industrial* district. The restaurants, bars and nightclubs have at least doubled in numbers (this does not account for food carts, and pop-up bars), and nearly ten percent of the study area is in the process of getting renovated – a significant amount and an indicator of the highly transitory time this district is in.

An emerging class that is fairly new to the district, but one that is growing is the category Personal Services for the Affluent. These businesses reside in older converted warehouses and

include martial arts gyms, yoga and Pilates studios, personal trainer facilities, massage studios, and physical therapy offices. All of these services, while potentially accessible to everyone, come at a high price tag and are exclusive in nature.

In the process of converting the older existing structures to new, primarily non-industrial uses there has been a profound influence on the functional and physical evolution of the neighborhood. These new businesses, which are clustered in the far north-eastern edge of the study area and along with the southern half of the central core, have created a different feel to the neighborhood. Car shows, music festivals, and art shows occur on open city streets during the evenings and weekends, while semi-trucks attempt to navigate the increased pedestrian traffic during business hours.

Change in Land Use

The trend of converting industrial buildings to mixed-use with multiple tenants is not unique to the Central Eastside Industrial District. Other cities have had similar narratives. New York, Milwaukee, and San Francisco have altered their industrial landscapes through economic policy focused heavily on gaining tourism (Curran 2009; Evans 2009; Florida 2002; Leigh and Hoelzel 2012; Rhode 2011). The City of Portland and the Portland Development Commission executed the same plan within the Pearl District when they converted warehouses to shops, galleries, museums, high-end housing, and areas that are referred to as "innovative open space" (Ecotrust 2014, 1). However, the conversion process of the Central Eastside is different. There has been minimal disclosure of the City's and PDC's ultimate plans regarding the neighborhood, and what coverage has been provided has been duplicitous.

While redevelopment and rezoning may be economically successful for developers, it comes with strong criticism. Rezoning is the most frequently utilized tool available to city

planners and the "most likely to have an immediately discernible impact upon the lives of the citizens in the community" (Haar, 1955, 1154). These impacts can be especially negative for established business owners who are forced to relocate due to increased property values which are a result of zoning changes, or when the environment around them impedes on their established workflow.

There are several issues that arise with the transformation of the CEID. These issues currently play a significant role in the transformation of the CEID's landscape. Some of these have to do with the changing business types that are invading and displacing the existing businesses, while others have to do with the physical fabric of the industrial landscape, such as adaptive reuse of buildings, along with traffic impacts. Each of these issues is described below.

The Push Out: Blue Collar Jobs get shoved aside

By far the most contentious issue that surrounds the transformation of the Central Eastside Industrial District is the pricing of industrial businesses out of the district. This has come at the hands of the City and PDC. In declaring the district an Urban Renewal Area, PDC has been investing money, in hopes of banking a large return on increased property tax values. This comes in tandem with the City increasing city fees, which is continually making it difficult for the existing industrial businesses to remain visible. Local business owners object to the increasing fees which have continually raised the cost of doing business altogether, arguing their tax money is going to pay off the Portland-Milwaukie light rail project, as well as parking meters and green-streeting, which are city assets that do not particularly benefit industrial work (Bjork 2011).

In addition, the businesses that do move in and who can afford the increased land costs often operate on a smaller scale using less square footage, with fewer employees, thus displacing the jobs of the previous industrial workers. On average, the current industrial businesses that specialize in warehousing, manufacturing, or industrial services employ at least 54 people. This is nearly double the number of employees for the newer business types which specialize in knowledge-based and design sectors that employ at an average, 34 people (City of Portland 2014). It is cruelly ironic, that the very business types that the City of Portland and PDC are trying to lure within their self-prescribed "Employment Opportunity Subarea" actually employ fewer people than the existing businesses types which are getting pushed out of the industrial core (City of Portland 2014).

If the new knowledge-based businesses that the city desires to build its brand continue to grow, along with major commercial and residential projects that follow, there is the possibility that these new developments could kill off incompatible businesses and future potential industry work. This is particularly true when looking at other cities like Atlanta, Baltimore, and San Francisco where the movement towards "smart growth" reduced industrially-zoned land to half of what it was, and offered little support toward existing industrial work (Leigh and Hoelzel, 2012, 89).

There is already a shortage of industrial land within the Portland metropolitan area. Replacing the industrial land "in the central city with commercial or residential uses depletes the region's overall industrial land supply" (Portland Business Journal, 2003, 3). And it is often the case that when industrial land is rezoned, the loss of that land to the city's industrial inventory is usually permanent (Rast, 2012).

The smart growth practices of eliminating industrial work from the urban core for more desirable knowledge based fields, inevitably homogenizes the city's economy. This then leaves the city's economy more vulnerable to economic recessions and does not support a sustainable mix of industrial jobs (Leigh and Hoelzel 2012).

Many proponents of moving industrial areas believe that adding more industrial land to the urban fringe is a solution. However, simply adding more industrial land to the suburbs does not help the smart growth ideology. This inevitably creates more sprawl and also places industry in an area that is not networked to transportation. Lacking interstate freeways and rail lines, suburbs make the transportation costs of goods and services related to the industrial work more expensive. It is important that planners "take into consideration transportation and logistical issues associated with certain parcels—the same logistical issues businesses consider when they are deciding where to site their buildings" (Portland Business Journal, 2003, 3).

Another concern regarding the replacement of industrial work within the Central Eastside Industrial District is the displacement of industrial sector jobs. Typically industrial work offers living wages to workers with a limited formal education (Rast, 2012). This is not an option when looking at software development jobs, or the digital film industry, which the city supports through recent policy. Displacing the industrial work to the suburbs makes it more difficult for the workers to get to work. When businesses are situated in the central city, industrial workers are able to use mass transit; however in the suburbs mass transit service is infrequent and at times unreliable.

Traffic and parking

The growing amount of automobile traffic has shaped the landscape and often complicated land use situations. Many of these cars are forced to park on the street since the traditional industrial use and layout of the area did not necessitate parking lots for the warehouses or manufacturing plants that are now occupied by offices, creative design studios, and restaurants. The parking problem can be seen throughout the district.

Traffic congestion is especially noticeable along Water Ave and Stark St, which act as major throughways for the district. While the traffic and parking become more of a challenge, many of the older, existing industrial users in the neighborhood still try to conduct business that relies heavily on delivery vehicles, trucks, and cars. Sheridan Fruit Company, Rinella Produce, Nicky USA, and Alexis Foods are major food distributors that rely heavily on trucks coming in and out of their warehouses.

The addition of TriMet's Streetcar in 2012, also added more complications to the already busy traffic pattern, (Figure 16). The addition of the streetcar drew criticism, not only for its added traffic complications, but also because of the high price tag, and low ridership. Some of the criticisms questioned the intent of the streetcar's installation, as it also lacks speed. During the planning stages of installing the streetcar, oddly enough, providing transit service was not a primary goal of the streetcar planners, "even though that's the primary reason people ride" (Charles, 2013, 4). When this prioritization was challenged, the response that came from the city planners was that the street car represented and promoted urban development, which in the end benefits everyone, because "even if you never step foot on a streetcar, you benefit from a city shaped by them" (Mark, 2013, 4).



Figure 16. Semi collides into streetcar on MLK Blvd. Source: KATU

Another recent change to occur in the CEID that created a backlash among the Central Eastside businesses was the proposal of a pedestrian and bicycle loop that would link Portland's inner east side with downtown. Many of the businesses fear that this proposed idea could affect their trucks' ability to move in and out of the district (Giergerich, 2012). This could potentially limit the access and use of the transportation corridors that the industrial district relies upon.

All of the vehicle-intensive operations are competing with an ever-increasing influx of non-industrial uses for street rights and parking. Because much of the development activity in the neighborhood consists of renovation and conversion of existing industrial buildings, traffic and parking problems can develop because investors are often limited by size, shape and orientation of structures. The implication for the CEID of these mounting problems is that access and parking availability in particular is often an important factor in the decisions of certain types of businesses to locate in one area over another. Consequently, industrial-type businesses might eventually move elsewhere.

SUMMARY AND CONCLUSIONS

Clearly the Central Eastside Industrial District has reached a critical point in its postindustrial transformation. As a geographer in the field, I witnessed much of the neighborhood's recent change. In addition, researching the historical roots of the neighborhood has given me an understanding of landscape evolution. The following summarizes the transformation process that is occurring in the CEID, the visible changes in character that are occurring, as well as hypothesizing on what the future of the CEID may bring.

Summary of the Transformation

In the early 1980s, during the declaration of the Industrial Sanctuary, the process of adaptive reuse had most likely begun, but had not yet gained much momentum. As zoning changes occurred in the early 2000's that momentum of transformation increased, bringing more significant building rehabilitations along with new construction. This was accompanied by an increase in restaurants, high-end retail, and knowledge-based businesses. An increasing number of artists' studios emerged, and the renovation of several large industrial buildings for multiple tenants occurred.

The current phase is continuing to bring more construction in the form of rehabilitations, as well as the early stages of new construction like the Burnside Bridgehead and the southeast Innovation Quadrant, wherein OMSI, the children's non-profit science museum is making the odd jump to real estate development, pairing with JPMorgan Chase and Intel for initial capital investment (Mesh 2014). These two new additions will bring the first forms of high-density residential living to the neighborhood and it will surely change the public environment of the CEID.

In addition to the diversification of land use types, so have the industries themselves diversified. Local industry has shifted from mass production to more specialized functions, and the products continue to change. The new businesses are smaller, and operations have become less intensive.

If the traditional architectural maxim states that form follows function, where does the CEID fit within its evolutionary cycle (Cohen 1998)? It is clear that the initial building types reflected the first generation of industrial land uses, which were also the uses in which the buildings were originally built and designed for. As time went on, many post-industrial businesses began to occupy and adapt the existing buildings for new business types, unrelated to the original industrial function. However, the building form, and type did not change to reflect the land use change. Only when the process of rehabilitation and adaptive reuse gained momentum, and an extensive number of buildings had been converted, did the physical landscape slowly begin to change into a postindustrial one with a veneer of signs, design motifs, and symbols signaling a change.

The pattern of diversifying land uses and the replacement of industry has complicated the identity of the Central Eastside Industrial District landscape. Referring to the District as an industrial district is less representative than before, due to the lack of consistency of function. The neighborhood is no longer an industrial district by nature.

Significance of Study and Conclusion

The transition of the Central Eastside Industrial District deserves attention for several reasons. First, some of the changes taking place are considered controversial (Giegerich, 2012). The analysis of the study area demonstrated how the city's push for 'revitalization' inevitably

pushes out the established industrial business, while ushering in businesses of non-industrial uses to fill the unoccupied spaces.

Second, the transformation of the Central Eastside Industrial District appears to be occurring without a coordinated plan, other than developers being allowed to come in and choose their ideal locations. There have been numerous recent planning documents published by the city referring to the district as the "next generation of industrial/employment sanctuaries" which the city claims to "preserve and provide for the long-term success of Central City industrial districts, …with higher employment densities" (Central City 2035 Concept Plan 2012, 11). However, no plan has been implemented.

While still referred to loosely as an industrial sanctuary, the flexible zoning of IG1 indicates there is still no real consensus on the vision of the neighborhood and its surrounding landscape. In addition, no existing study focuses on the transformation of the contemporary landscape of the closest industrial sanctuary to downtown Portland (City of Portland 2009). In addition, the City of Portland and Portland's Bureau of Sustainability has conducted research and prepared reports on the CEID and its transition, but there was no thorough geographic analysis or consideration of the implications this transition may bring (City of Portland 2014). The research done here helps fill this void and provides a neighborhood based study of the rapidly transforming Central Eastside Industrial District.

Lastly, the transition that the Central Eastside Industrial District is experiencing is happening in other cities with similar urban, industrial landscapes. There has been a national decline within the industrial sectors and a "shift away from the use of large areas of urban land for industrial activities" (Cohen 1998, 24). Cities like Atlanta, Baltimore, Chicago, New York, Milwaukee, and San Francisco have altered their industrial landscapes through economic policy focusing

heavily on gaining tourism (Curran 2007; Evans 2009; Rhode 2011). These cities have also made an effort to attract what Richard Florida calls the "creative class: a fast-growing, highly educated, and well-paid segment of the workforce on whose efforts corporate profits and economic growth increasingly depend" (Florida, 2002, 2).

Through this process, there are many postindustrial landscapes that continue to emerge, either by design or market opportunity, which seems to be the case of the Central Eastside Industrial District. Understanding how this landscape evolved to its present form, may help one understand the continuing transformations of the future.

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FIGURES

All photos by Allison Jones except those noted below:

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