

Report One & Two & Three
Research Seminar Report

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Report One

Re-uniting the city and the university

The case of Delft

Re-uniting the city and the university

The case of Delft

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Introduction

The relationship between the city and the university has been widely discussed in the academic circles. Now, universities are important players in the development of the knowledge economy, which being significant contributors to the economic development of their host cities. However, this is not enough, due to the complex social requirement, universities should assume more responsibilities on multifaceted frameworks that embrace social issue.

Delft, as a typical university town, which hosts the largest technology university in the Netherlands, has a long history of dealing with the relationship between the city and the university, but now, it faces a tough problem that how to re-unite the city and the university in the era of knowledge economy. Although Delft has made a big progress in collaboration with Delft University of Technology to improve local economic development, there are still many problems faced by the government. We have to realize that collaboration that focus on economic development alone is not enough to achieve sustainable urban development. Now there are more and more successful stories illustrating collaboration between the city and the university to facilitate local cultural and social development.

This report focuses on the topic that Re-uniting the city and the university. Firstly, I will briefly review the development of relationship and collaboration condition between the city and university in history. Than the report will focus on the case of Delft and its relationship with the Delft University of Technology, meanwhile point out extant problems in Delft. Finally, an advisable scheme is brought up for Delft to facilitate social development with collaboration of Delft University of Technology.

Review of the development of relationship between cities and universities

There has been a long history of relationship between cities and universities in Europe since the first university set up in 1088 in Bologna, Italy. The history of their relationship can be roughly divided into two distinctive periods: one, in the period 1200–1800, when the University was in the town, but not of it; the other, post-1800, when the two were much more closely connected. This paper will mainly discuss the relationship between the cities and universities in the second period.

Thomas Bender¹, in his book *The University and the City* provides fascinating evidence on how universities became embedded in the cultural, economic life and built environments in cities around the world. The universities established in British provisional cities like Birmingham, Manchester, Leeds, Sheffield and Newcastle

¹ Thomas Bender, 1944 - , American historian, specializing in urban history and intellectual history.

were created to support 19th century industrialization and were a classic example of civic institutions. These universities not only provided support for the newly emerging industries in the form of scientific advice and skilled labor but also through their medical schools contributed to raising the health of the population. They also played a leading role in the public sphere by participating in debate about literary, philosophical and scientific subjects.² In his opinion, universities and cities had historically long been important to organizing complex societies.

The city and the university used to have a close relationship with each other at 19th century. However, due to the change of government policy and development of universities during the second half of 20th century, the favorable relationship between the city and the university collapsed. Many universities turned their backs on the cities where they were located.

With the advent of the era of knowledge-based economy, knowledge that originates from universities and 'spills-over' to nearby firms is seen as a key factor in the development of urban or regional clusters in high-technology sectors³. So, the relationship between the city and the university experienced a recovery especially in the field of economy. This focus has been reinforced by the strengthening of a parallel policy discourse around the notion that cities and regions themselves compete with each other as relatively coherent economic units⁴.

Various recent strands of thinking in the academic literature have, however, started to move away from the narrowness of the understanding of regional development based on economic innovation and competitiveness alone, and towards more multifaceted frameworks that embrace dimensions such as social equality and cohesion, democratic participation, and so on.⁵

A similarly position is taken by Moulaert⁶ when he outlines the concept of 'social innovation' as an alternative dynamic in territorial development to technological innovation in the economy. The definition of social innovation is one that 'refers to those changes in agendas, agency and institutions that lead to a better inclusion of excluded groups and individuals in various spheres of society'.⁷ These critiques also accord with wider arguments that the current emphasis on developing knowledge-based economies is often disconnected, or even in tension, with the social development concerns of cities and regions.⁸ The inherent diversity of expertise residing in higher education institutions indicates that their potential significance as agents of local development cannot be simply reduced to that of catalyst for knowledge-based economic growth.

Actually, now, it is generally accepted that universities perform three basic

² Bender 1988: 192.

³ Cooke 2002: 20-21.

⁴ Begg 1999: 795-809.

⁵ Morgan 2004: 871-889.

⁶ Frank Moulaert, 1951 - , Professor of Spatial Planning at the Department of Architecture, Urban Design and Regional Planning at Catholic University of Leuven. He is Director of the Urban and Regional Planning Research Group and chairs the Leuven Space and Society Research Centre at the University. Moulaert has initiated a number of research and development projects on social innovation in territorial development.

⁷ Moulaert and Martinelli 2005: 1969-1990.

⁸ Chapain and Lee 2009: 157-164.

functions: research, teaching and learning and providing services to the community under conditions of institutional autonomy and academic freedom.⁹ Modern universities should provide more and more contribution to local and regional social development as part of their mission, as function additional to the didactic and research ones.

Review of relationship between the city Delft and the TU Delft

This part will mainly focus on the relationship between city of Delft and the Delft University of Technology and explore how they interact with each other in different periods on the aspect of economic and social development of the city.

Delft is located in the province of South Holland, Netherlands, which is a medium-sized city with a population of about one hundred thousand as of the year 2015. It has rich history and used to be one of the leading cities of the Holland in the sixteenth century.

In history, the city of Delft benefited a lot from the university due to the close relationship between each other. Due to the existence of the university, the city has been regarded as a center of knowledge. The university provided Delft with the definitive knowledge push during the industrial age, which led the city becoming an important industrial center in the Netherlands. Important sectors included the metal industry, the optical and instruments industry, the chemical industry, construction, food and drinks.¹⁰

However, the development of university and change of government policy I have sketched in previous part have their effect in Delft as well, needless to say. In the period of 1960-1976, the process of de-industrialization began in Delft, which was represented on the drop of the share of employment in the industrial sector. At that time, 'Delft society' and the Delft University of Technology can be said to have been two different worlds, two separate cultures during that time, all the more because the university buildings were moved from the city center to an outlying area.¹¹ It was not until the mid-eighties, increasing unemployment received enough attention by local government. At the end of eighties, the local authorities was aware that it was desirable for the city to have a clear vision for the future. Co-operative ventures between the city and the University should be intensified. The center of knowledge was considered to be one of the strong points for future development of the city.

In the early 1990s, the municipality of Delft had deployed a policy to position Delft as a 'knowledge city'. The main purpose of this policy was to promote the development of knowledge-intensive activities. This was to be offered to counterbalance the strong declining employment in industry sector. Despite the efforts exerted by local municipality, Delft did little to improve local economy and had disappointing results in its economic performance, remaining under the national average in terms of economic growth.¹² In 1995, Richard Knight pointed

⁹ <http://www.unesco.org/>

¹⁰ Kraaijestein 2002: 2.

¹¹ Kraaijestein 2002: 3.

¹² Geenhuizen and Nijkamp 2012: 53-83.

out Delft's weakness: the limited synergy within the knowledge sector and between this sector and the local community, producing social, economic and spatial divides between the local population and the knowledge workers.¹³

This advice urged the government to rethink the relationship between the city and the university comprehensively. After many in-depth studies, several new policies were launched by the government such as the 'Delft City of Knowledge Strategy' and 'Delft Kennisstad: City of Technology'. Meanwhile many practices have been done including the establishment of business parks - the Delftech Park, new city plan of transforming the university district into a high-quality area - the Technology Innovative Complex Delft (TICD),¹⁴ Delft University of Technology also started to actively join this progress including the techno-starters programme - YES! Delft, and collaborated in many local and regional networks, like Medical Delta and Clean Tech Delta.

As mentioned above, the city of Delft has made a great progress in collaboration with local university in order to improve local economic development. However, according to some experts' opinion, collaboration that focus on economic development alone is not enough to achieve sustainable urban development. Integrated strategies that take a proper balance between economic and social goals into account would achieve better results and have more potential for sustainability in the long term.¹⁵ Now, the government of Delft faces a tough problem that how to integrate the university into local community. As we all know a favorable community that has convenient social services, abundant cultural and recreational facilities and great city atmosphere is the key factor to attract and retain scholars, graduated students and international works living in the city. At this point, the city of Delft still has many deficiencies. The city and the university isolate from each other physically, socially and culturally, which lack of active interaction. Taking the Delft university of Technology campus for example, due to lack of urban facilities and places for people to meet, the campus does not contribute to Delft's liveliness any more. Outside office hours, it becomes a desolate and uninviting area.

It is obvious that universities are important players in the global development of the knowledge economy. However, alongside being significant contributors to the economic development of their host cities, they are also crucial suppliers of the human and intellectual capital on which the knowledge-based economy depends. What seems under-explored in the city of Delft is how deliberative partnerships between university and city can develop around social aspects.

University spatial development as an opportunity for Delft

There is no doubt that active involvement of the University in a region becomes increasingly important for its sustainable development.¹⁶ Many studies have shown that spatial development of universities can be one of effective ways to

¹³ Knight 1995: 225-260.

¹⁴ Gemeente Delft, 2007a.

¹⁵ Geenhuizen and Nijkamp 2012: 53-83.

¹⁶ Clark 1998: 26.

stimulate social development. The idea of 'third university mission' emerged, namely the increasing emphasis on the social, cultural, political and environmental benefits which universities can bring.¹⁷

There are many benefits which universities' broader campus development activities can offer to cities. The first are those which help to create new knowledge-intensive spaces, either creating whole new knowledge districts, or improving facility provision in particular locations. Secondly, universities can contribute to the quality of urban atmosphere, which are quite essential to attract and retain talented people and firms. Thirdly, universities can contribute to the intangible development of the city, directly contributing to place branding whilst also enhancing universities' image in local region. More and more university-city collaborative initiatives focused on university properties represent a desire to produce favorable social environment which reinforce the position of the university and the city.

According to Dr. Paul Benneworth's essay *'Building Localized Interactions between Universities and Cities through University Spatial Development'*, there are three spatial models of engagement between the city and the university. The first is spatial separation and regional engagement, namely the city and the university can work together towards regional economic and social development, but be spatially separated, as exemplified by the Twente University, which has a significant urban impact but the university itself located outside the city. The second model is spatial integration and collaborative growth management. As exemplified by the Massachusetts Institute of Technology and Harvard in Cambridge, these two world class universities are totally spatial integrate with their host city, which enable the university and the city both benefit from this spatial integration. The last model is specialized dispersal and multiple interfaces. Rather than full separation or integration, some universities may expand on new sites inside the built-up area, generating new interfaces with the city and new local centers of activity.

In my opinion, the MSc3 graduation project is an opportunity both for the city of Delft and the Delft University of Technology to form a new interface, which could re-unite and benefit both. There are also some excellent precedents show success of this spatial model. The first example is the International Centre for Life, which belongs to the Newcastle University in the UK. the University's approach to regional engagement come through the development of a new mini-campus integrating science, education, leisure and commercial uses - the International Centre for Life (ICfL), which seeks to create specific functional zones within the city, and builds better links to adjacent city areas. The university supported ICfL's creation in 2000 by transplanting a select and diverse set of activities onto a new location near the Central Station. ICfL's diversity is supported by governance arrangements which aims to hold together a diverse constellation of actors. ICfL's vitality depends on juxtaposing heterogeneous activities into a delimited space, in the hope of making the site and its surroundings attractive to others and so stimulating a wider wave of regeneration. The ICfL is not a university faculty isolated from surroundings, but it is

¹⁷ Benneworth and Charles 2010: 1611-1629.

an urban institution jointly used by different social groups. Besides the university education function, at the heart of the ICfL is the Life Science Centre, which attracts around 250,000 visitors annually. Life's public engagement programmes draw a broad audience for exhibitions and special events, and the education team deliver the biggest schools' science workshop programme in any European museum or science center. ICfL brings together a range of university and urban activities, to raise the attractiveness of the area and the competitiveness of the city. Another example is the CREA culture center in the city of Amsterdam. CREA is a cultural organization of the University of Amsterdam (UvA) and the Amsterdam School of Higher Education (HvA), which instills energy into the Roeterseiland campus and its surrounding area. It organizes a wide range of cultural activities such as lectures, debates, theatre and dance performances, concerts and exhibitions not only for students but also for city residents. All facilities in this center including theater, music hall, café and a large number of studios in different sizes are open to publics, which can be rented by both students and citizens. The CREA is not only a cultural center exclusively used by the university, but also a regional culture hotspot which facilitate local amenities development.

In conclusion, the city of Delft, which is regarded as a typical university city, has a long history to deal with relationship between the city and the university. After the review of this history, we gain a general understanding of development status of collaboration between the city and the university. It is both an opportunity and challenge for the city government to think of how to make a better use of the resource of universities to improve the city development.

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Report Two

The profile of the potential users of the cultural center

The profile of the potential users of the cultural center

Xiao Sun

Introduction

This report is a social research, which is directed at the potential user of new cultural cluster in the city center – the residents of Delft. This research focuses on the demographic characteristics of Delft. Based on the analysis of age structure, population composition, distribution and type of labor, the research wants to establish more reasonable program setting and guideline for new cultural cluster.

Potential user analysis and researches are very helpful to make well-considered decisions of the program setting of a small-scale project. This kind research will enable the proposed project to better meet the need of user group. What is the demand for such a cluster is main question that this research want to answer.

Background

We want to further open up the city for culture and creativity. Within and outside, in the street, in the city and neighborhoods. We offer people the opportunity to participate, himself develop, and promote talents.¹⁸

---- BELEIDSPLAN KUNST EN CULTUUR 2009-2012

The city of Delft now is experiencing a transformation from a traditional industrial city into a knowledge city. In addition to economic conversion, culture and society upgrade are also key to success in this transformation. During this transformation, the population composition of the city of Delft also experiences a variation, which unquestionable has a great influence on social requirement especially in the cultural aspects. As we all know that the city of Delft has great cultural treasures. The city is a stage for all kinds of cultural and creative expressions. Events contribute to the vibrancy of the city. However, in recent years, the arts and culture funding from both the state and the municipality declined sharply. The government of Delft finds it nevertheless important to have a varied, playful and daring cultural offer in Delft to satisfy local residents' requirements.

Although the city already has a theater (Theater De Veste), a library (DOK), a center for arts (VAK) and a museum of history (Prinsenhof Museum) including Delft Delftware, there still need places for innovative activities. In other words, besides the rich historical culture, the city of Delft intends to calls for more spaces to accommodate cultural activities and more cooperation between the creative and cultural associations, institutions and networks to facilitate cultural development,

¹⁸ <http://ris.delft.nl/>

which could give momentum to the cultural climate of Delft.

Demand for a cultural cluster in Delft

Although there is a pressing demand for a new cultural cluster in Delft, It is still very important to figure out the explicit requirements of potetial users of this cultural facility. The target user group – Residents of Delft – is a complicated group, which can be subdivided by different factors, such as age, education level and etc. Only when we intensively study these factors separately we could get a comprehensive and thorough understanding of the demand of the whole group.

The demographic characteristics of population of a city could indicate specific demands for certain activities and space.

1) General Population information

Delft is a medium-sized city located in the province of South-Holland, between the city of Rotterdam and The Hague. From the Chart1¹⁹ on the right, we could see that the total population of Delft continuously increase in recent years, which reaches 101,044 in the year 2015. Whilst the population in the downtown (Binnenstad) is 12.683 which are housed in 6.057 household. (Can be seen in the Chart 2).²⁰

As the city of Delft is regarded as a typical university city, the amount of students is a very important factor which could have a vital impact on city's life and requirement. Among all the population of the city of Delft, the amount of students who are studying in the Delft University of Technology has reached 19.613 by the year 2015 (can be seen from Chart 3).²¹ If we take the other three colleges (two technology schools and UNESCO-IHE) into consideration, the total student population will exceed 20.000, which accounts for about 20% of total population of Delft.

Population Delft by sex (January 1, 2015)

January 1st	men	women	total
1900	15.296	16.293	31.589
1920	19.547	18.886	38.433
1940	27.541	27.416	54.957
1960	37.974	35.349	73.323
1980	42.940	40.971	83.911
2000	50.299	45.802	96.101
2010	50.846	45.915	96.761
2011	51.655	46.044	97.699
2012	52.303	46.370	98.673
2013	52.646	46.462	99.108
2014	53.405	46.656	100.061
2015	54.044	47.000	101.044
of which foreign ethnic population abs.	17.736	15.001	32.737
%	32,8%	31,9%	32,4%

Chart 1: Population of Delft

Source: CBS and Registry Office Demographic structure

Population and housing accommodation per district

district	popula-tion	housing acc.
11 Binnenstad	12.683	6.057
12/16 Vrijenban (incl. Delftse Hout)	9.257	4.484
13 Hof van Delft	13.270	5.940
14 Voordijkshoorn	10.826	5.096
22/23/26 Tanthof (incl. Abtswoude)	14.384	6.972
24 Voorhof	13.691	7.170
25 Buitenhof	13.957	6.904
27/28/29 Wippolder (incl. Schieweg en Ruiven)	12.976	6.576
total Delft	101.044	49.199

Chart 2

Source: Registry Office and CBS

University education

University of Technology	1	19.613
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Chart 3

Source: University of Technology Delft

¹⁹ Gemeente Delft, Essential facts 2015: 3.

²⁰ Gemeente Delft, Essential facts 2015: 5.

²¹ Gemeente Delft, Essential facts 2015: 7.

There is an interesting description from a local resident of Delft about students' impact on this city, saying that 'It feels empty and sleepy in the downtown when most students leave the city for their summer holidays. ' Students are always the most active and energetic group in the city. They long for colorful and rich spare time life. So this group have a strong demand for a cultural center to enrich their extracurricular life, develop cultural and art hobbies or even make new friends.

Meanwhile, it is worth to notice the fact that there are only two third, about 14,880 students, living in the city of Delft. We have to notice that almost one third students who are studying in Delft choose to live outside the city, which does not attribute to city's liveliness. There are several reasons lead to this result. First of all is the high rental price and less available apartments for students in the city of Delft. They can find more apartments in relative low price in the adjacent cities, such as The Hague and the Rotterdam. Another main reason is that students can enjoy much more cultural and recreational activities in these cities, which could bring them a richer life than Delft does. So, in my opinion, the new cultural cluster should accommodate space, facilities and services which meet students' need in order to attract and retain students to live in the city, such as classes and workshops in the field of theatre, music, dance, visual arts, video, photography and literature; Cultural program -- lectures, debates, theatre and dance performances; and Recreation facilities -- party room, club and café.

2) Age Distribution

By analyzing age distribution charts of the city of Delft, we could figure out the age structure of this city, which enable us to set proper programs for main age groups in the city and meet their requirements.

The first chart below shows us horizontal comparison of age structure between the city of Delft and the whole Netherlands in the year 2015 (Chart 4)²². The second chart illustrates a vertical comparison of age structure of Delft between the year 2005 and 2015 (Chart 5)²³. From the Chart 4, we could know that the figures of 20-24 group, 25-29 group and 30-34 group in Delft are distinctly higher than the average level of the whole Netherlands. Whilst we also learn from the Chart 5 that the population amount of these three groups increase dramatically in the last ten years in Delft. Both diagrams indicate the fact that young adults whose age between 20 and 34 years old in Delft are predominant component of population of Delft. The extremely high figure of these groups compared with average level of whole Netherland is partly due to the existence of Delft University of Technology and other knowledge-intensive institution, such as UNESCO-IHE, TNO, Deltares and etc. Many young students and scholars migrate to Delft and study and work here.

So together with conclusion derived from population analysis in previous part, we could indicate that there does exist a strong demand for more cultural facilities in the city to meet young residents' need.

²² Gemeente Delft, Essential facts 2015: 2.

²³ Gemeente Delft, Essential facts 2015: 2.

In addition, from the Chart 5, we could recognize that the figures of 60-64 group, 65-69 group and 70-74 group also experienced an increase in the last ten years (from the year 2005 to 2015), which indicates that there is an increasing amount of aged population in Delft. This fact asks us to take the requirement of these elder population into consideration in the new cultural cluster. So when we set the program of the cultural cluster, we should provide suitable services and activities for these people, such as bridge club, outdoor recreation space and etc.

In my opinion, the new cultural cluster should not only exclusive serve youth and students of Delft, but also open to all residents of the city. Everyone could find appropriate activities in the cultural cluster.

Age structure of Delft and Netherlands (January 1, 2015)

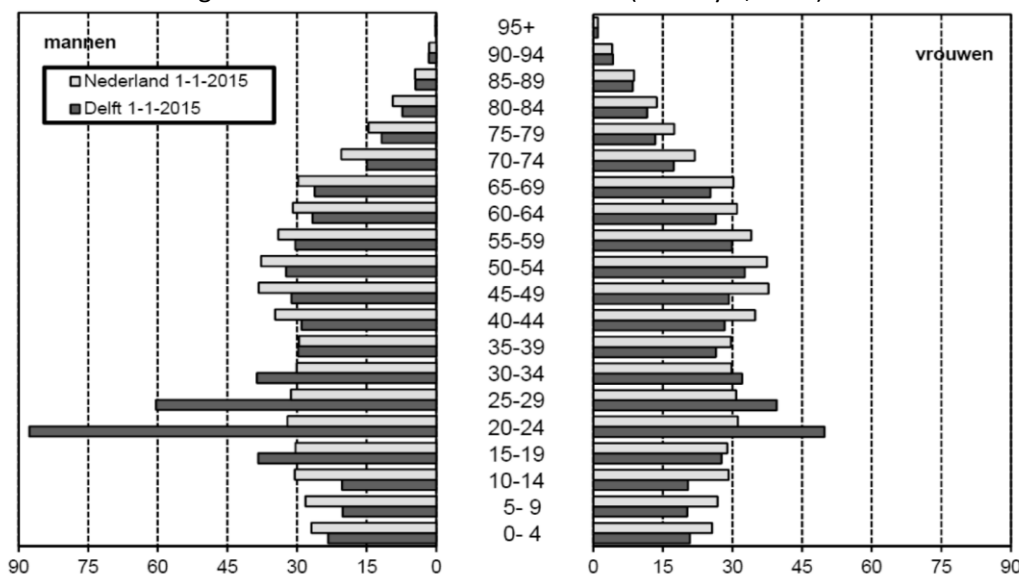


Chart 4: Age structure of Delft, Netherlands (January 1, 2015)
Source: Gemeente Delft, Burgerlijke stand en Burgerzaken en het CBS

Age structure of Delft on the year 2005 and 2015 (January 1, 2015)

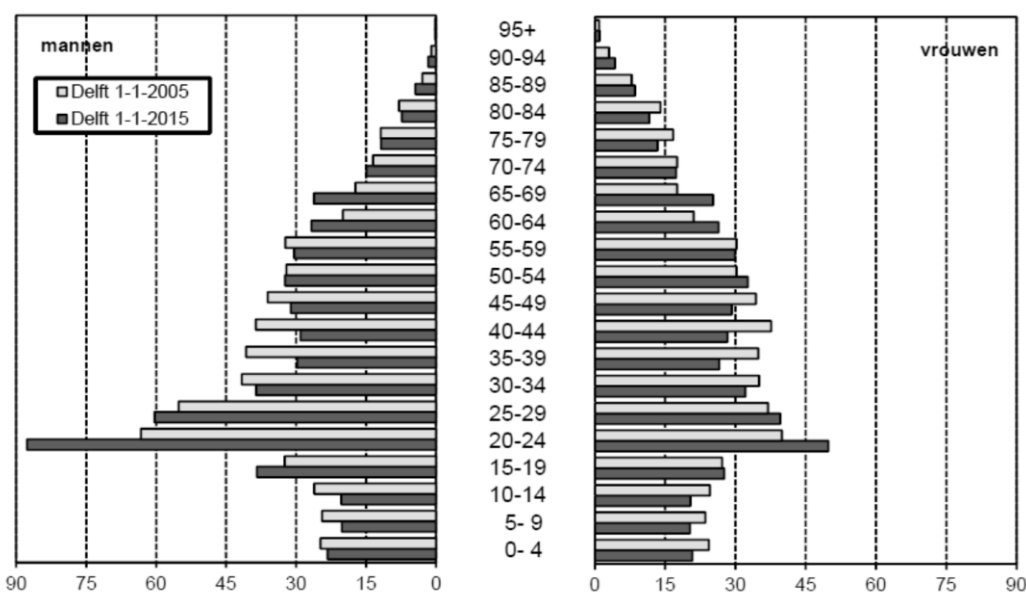


Chart 5: Age structure of Delft on the year 2005 and 2015
Source: Gemeente Delft, Burgerlijke stand en Burgerzaken en het CBS

3) Labor force of Delft

Knowledge has become the strongest point of Delft's economy. From the Chart 6²⁴, we could know that there are totally 16,392 employees working in the knowledge-related business by the year 2014 in the city of Delft, which accounts for about 38% of all labor force, indicating that knowledge-based economy has become one of the back stones of the city. There are more and more population in this city involved in the knowledge-based business. More specifically, there are nine knowledge-based companies hiring 200 or more employees in Delft

and three of them even have more than 1,000 employees. The largest employers in Delft are Delft University of Technology and TNO (can be seen from chart 7).²⁵

As we all know, Delft is experiencing a transformation from a traditional industrial city into a knowledge city, which is a complicated process of change not only in the field of economy but also in all other social aspects. Delft has made an achievement in the field of economy during this process of transformation. About one-third of jobs in Delft is knowledge-intensive. However, a recent study shows the fact that large share of employees in the knowledge sector live outside of Delft which have not contributed to city's liveliness. The reasons why knowledge-intensive labor force group choosing to live outside of Delft are complex. In addition to the poor and narrow rental-market in Delft, which cannot provide enough available advanced apartment to meet knowledge-intensive Employees' need, lack of cultural facilities and activities is another important reason resulting in this problem. Employees in the knowledge sector usually have a good educational background and high-level income. This group of residents of Delft may has different cultural activities preference compared with the students group. They usually pay attention to social interaction and promotion of their life quality. So in my opinion, the new cultural cluster should provide space for salon, club and even professional exhibitions, lectures and debates in order to meet this group's need.

Business establishments and employees by knowledge activity

January 1st 2014	establishm.	employees
knowledge-based production	40	2.106
knowledge-based services	1.664	14.286
other	4.074	26.625
total	5.778	43.017

Chart 6: Business establishments and employees by knowledge activity
Source: Information/Research & Statistics

Knowledge-based companies with 200 or more employees

January 1st 2014	company size
knowledge-based production	
DSM BV	1.000 of meer
Prysmian Group	200-499
knowledge-based services	
University of Technology Delft	1.000 of meer
TNO	1.000 of meer
Deltares Foundation	500-999
Allseas Engineering BV	500-999
Neth. Standardization Institute	200-499
Exact BV	200-499
TOPdesk Netherlands BV	200-499

Chart 7: Knowledge-based companies with 200 or more employees
Source: Information/Research & Statistics

²⁴ Gemeente Delft, Essential facts 2015: 14.

²⁵ Gemeente Delft, Essential facts 2015: 14.

A change in cultural atmosphere of Delft is essential to bridge the division between 'traditional Delft' and the knowledge sector. The local government must actively involve citizens, companies and social organizations in the achievement of this cultural shift. Upgrading the cultural activities of Delft is crucial to attract and retain knowledge-intensive labor force.

4) Existing Cultural institution in Delft

In addition to the demographic analysis of Delft, it is also valuable to investigate the spatial distribution of potential user – residents and main existing cultural institutions



Diagram 8: Map of Delft

Source: Drawn by Msc 3 Graduation seminar group

in the downtown of Delft. The location of cultural facilities is always a crucial factor to determine whether they are convenient for people to use. This research will mainly focus on the downtown of Delft.

From the above map we could know that the downtown of Delft is a zone with high-density inhabitancy. Living function is equably dispersed in the downtown, but the four existing cultural institutions are located in the south part of the downtown. They are the DOK, the Theater De Veste, the VAK and the Prinsenhof Museum respectively, which provides most of cultural activities for the Delft's residents. The DOK is the public library of Delft, which provides cozy place for residents to borrow books, music, movies and seek information. The De Veste is a municipal theater with a 500 seats auditorium, providing space for performances in the genres of drama, comedy, dance, musical and show, concert and opera. The VAK is a cultural center which provides classes of painting, dancing and music for Delft residents. The Prinsenhof Museum is a municipal museum and a famous tourist attraction. Although these cultural institutions already provide various cultural activities for the locals, there are still some functions missing in these facilities, such as free study space, rental studios, lecture hall, exhibition space and so on. So the programme setting of the new cultural cluster should adopt variety strategy which will not disturb the existing cultural institutions' operation, meanwhile provide opportunities for different cultural activities in order to meet potential users' various requirements.

In addition, the site of new cultural cluster is located between the street Koormarkt and Brabantse Turfmarkt (shown on the map), which is adjacent to the DOK library and the Theater De Veste. Every resident who live in the downtown can get to the site within 15 minutes' walk (one kilometer). So, in my opinion, this new cultural cluster is convenient for local inhabitants to use. Meanwhile, due to the adjacency to the DOK Library and the Theater De Veste, in the future, this zone may become a cultural hub of Delft.

Programme setting of new cultural cluster

Through the demographic analysis of potential users of the new cultural cluster, now we have a general understanding of the function requirements of this institution. In my opinion, the proposed project is an opportunity both for the city and Delft University of Technology to form a new interface, which could re-unite and benefit both. An opportunity is seen to provide an elaborated place of social and intellectual contact between the university and the public, affected by objects and realized through students, citizens and visitors. It is no doubt that the new building is an institution shared by the university and city, students and citizens.

A suitable programme setting of this new institution is quite crucial to the success of this project. From my point of view, the new building should not only provide spaces for university students but also for residents. To summarize previous analysis of needs of potential users, here is a list of function setting of the new cultural cluster:

- Archive (main function of this institution)
- Multi-function hall (integrated with the archive space)
- Study rooms (both for students and residents, which can be freely used)
- Rental studios
- Galleries or exhibition space
- Public gathering space (both interior and exterior)
- Recreation facilities (party room, club, café and etc.)

As to the collection in this new building, it should not only store and exhibit the Delft University of Technology's artefact collections, such as the Sluyterman Collection which is the most prominent among them (currently accommodated in the cellar of the TU Library building), but also provide space for the display of unique artefacts that might visit the city, such as a painting by Johannes Vermeer, as has been most recently 'welcomed home' in the Prinsenhof Museum.

In conclusion, Delft as a typical university town, has close relationship with local university. As stated in the first report. The city of Delft already has established stable cooperation with TU Delft in the aspect of economy, but collaboration in other aspects such as society service provision, cultural facilities joint-use and city atmosphere creation seem to be still insufficient. So the Delft government should fully utilize the university's resources to improve local cultural development.

References

- College van B&W
2009 Beleidsplan Kunst en Cultuur 2009-2012;
- Gemeente Delft
2015 Essential facts

Report Three
Case study of the CREA cultural center

Case study of the CREA cultural center

Xiao Sun

Introduction

What is researched and why?

This report illustrates how a university cultural facility can contribute to regional vitality through a comprehensive case study -- CREA cultural center in Amsterdam. As I have mentioned in the first report, with the advent of the era of knowledge-based economy, universities' functions are not only restricted to do researches and to impart knowledge, but also extended to provide services to the communities or cities where they are located.¹ The city of Delft as a university town has long history to cooperate with local universities. However, due to some historical reasons, the campus of the Delft University of Technology have totally moved out of the city center which weakened the link between the city and the university both on spatial level and social and cultural levels. This isolation undoubtedly generates negative effects on the development of both entities. In my opinion, now, it is essential to rebuild the close relationship between the city of Delft and the Delft University of Technology and it is invaluable to form a new interface, which could re-unite and benefit both.

Nowadays, there are many reported successes in the city-university collaboration, such as the national science park – Kennispark in Twente, the International Centre for Life in Newcastle, the CREA cultural center in Amsterdam and etc. All these examples illustrate close and triumphant collaboration between universities and cities in different ways. Conventional university buildings only serve their students and are not open to the public. However, various recent strands of thinking in the academic literature have started to move away from the narrowness of this conception.² As can be seen from the above mentioned cases, one thing in common is that they all take local residents as the potential users and consider the requirements of society at the beginning of the design. Due to this consideration, these buildings not only meet the requirements of university but also contribute to the development of their host region. For the graduation project, although university students and researchers are undoubtedly important user groups, I also hope to attract more local residents to visit and use this facility, which could enrich their cultural life and bring vitality to the ossified city center. Therefore, in this study, residents become the main research object.

In this report, I will focus on the successful case – the CREA cultural center. On the one hand, I will analyze its program setting and operation pattern, on the other hand, I will explore its non-student user groups including their demographic characteristics and attitudes towards this center. By doing this, I try to figure out the

¹ <http://www.unesco.org/>

² Morgan 2004: 871-889.

key to the success of collaboration between the university and the neighborhood in the CREA, meanwhile abstract the valuable experience that can be learned by Delft. The reason for this emphasis is simply because the CREA cultural center, an eye-catching example, performs well on the aspect of collaboration between the university and city and it has a key role in promoting regional social development. Hence, the research is particularly interested in why it attracts local residents to use this cultural center and how it operates.

To get the answer, this research adopts three kinds of research methods: document research, questionnaire survey and comparative study method. Each method covers its specific research scope and interworks with each other to get final result. Among these methods, comparative study method is the core of this study which is throughout the whole research.

From my point of view, the social researches are very helpful for designers to make well-considered design decision. Only when we figure out the real social requirement and people's behavior pattern, can we meet their needs. What we learn from the CREA cultural center, either achievements or failures, is invaluable experience for the graduation project.

Research Background

A brief introduction of the Roeterseiland Campus and the CREA cultural center

The Roeterseiland Campus is an open city campus designed to offer future-proof teaching and research facilities. The Faculties of Economics and Business and Social and Behavioral Sciences are located at this campus. The Faculty of Law will move to the campus in the summer of 2017.³ This campus is public accessible. The quays along the Nieuwe Achtergracht forms the entrance to public functions, where located the CREA cultural center -- an invaluable addition to the campus and the neighborhood. The CREA is a cultural organization of the University of Amsterdam (UvA) and the Amsterdam School of Higher Education (HvA), which instills energy into the Roeterseiland campus and its surrounding area. It organizes a broad range of cultural activities such as lectures, debates, theater and dance performances, concerts and exhibitions not only for students but also



Fig. 01 Lecture in the CREA
Source: http://www.crea.uva.nl/over_crea_en.php



Fig. 02 Debate in the CREA
Source: <http://www.folia.nl/actueel/63224/koninginnedrama-in-crea>

³ <http://campus.uva.nl/en/roeterseiland/roeterseiland-campus.html>

for all non-student users. All the facilities in this center including theater, lecture hall, café and studios are open to the publics. The CREA is regarded as a regional culture hotspot which facilitates local amenities development.

This case shows the fact that university facilities can be mutually beneficial for the city and the university in generating new interfaces and stimulating new activities. The CREA center has an excellent lecture hall (as shown in the Fig. 01 and Fig. 02) which can be seen as a magnet by providing superb activities. This multi-function hall is 17 meter long and 10 meter wide, which provides 100 seating places in rows or 160 standing places. It is ideal place for holding concerts, parties, debates and conferences. Almost every day there are well-organized events holding in this amazing hall ranging from performance, lectures, debates, film and documentary screenings about science, politics, art and culture.

Another attraction of this center is the CREA café. It is a nice place to take a break or get together. The large terrace outside this café is the most attractive place for students and local residents because of its wonderful view.

A brief introduction of the Weesperbuurt/Plantage neighborhood

(1) The history of Weesperbuurt/Plantage neighborhood

The development of the Weesperbuurt /Plantage neighborhood is the result of the 'fourth town explanation' movement of the city Amsterdam in the seventeenth century. At that time, Amsterdam was one of the richest and fastest growing cities in Europe because of the overseas trade. There was a great need for more housing and the city council decided to develop this marshy land area. Initially, the demand pressure for housing in the Weesperbuurt /Plantage neighborhood



Fig. 03 Location of the Weesperbuurt /Plantage neighborhood
Source: Drawn by author

is not as great as that in the city center. So, unlike the typical Amsterdam-scale, there was enough room to construct larger-scale buildings in this area such as breweries,

waste treatment plant and so on. In the nineteenth century, some commercial and cultural facilities were built in this area, such as the Amstel Hotel and the Theater Carré, which stimulated the development of this area. From the 1960s, the development of this area mainly focused on the construction of city infrastructure including subway and city boulevard (the Weesperstraat), meanwhile, the office and education functions were transferred into this area. Since the construction of this neighborhood, it is clear that the area was not initially focus on living, but at work, first in the form of industry, later in the form of offices and education.⁴

(2) Urban function layout

As can be seen from the diagram, due to the historical reason, besides residential function, many cultural organizations, offices, education institutions and healthcare facilities are housed in this area.

Along the boulevard Weesperstraat, the main function is office, where several major municipal services departments are established.

Along the Plantage Middenlaan, there are many cultural organizations. In addition, several cultural institutions are located along the Amstel River, including the Theater Carré and the Hermitage Amsterdam Museum which used to be the fourth large health care organization in the Netherland.⁵ In addition, the Roeterseiland Campus occupies a large part of this area, which is one of its four major campuses of the University of Amsterdam. By the academic year 2016/2017, the number of students studying on this campus will reach about 19,000.⁶

Another prominent feature of this neighborhood is that there are several healthcare facilities gathering in this area. They are St. Jacob (Plantation Middenlaan), the Sarphathuis (Roetersstraat) and Wittenberg (Nieuwe Kerkstraat), respectively.

Due to the composition of urban function of this area, there are about 40,000

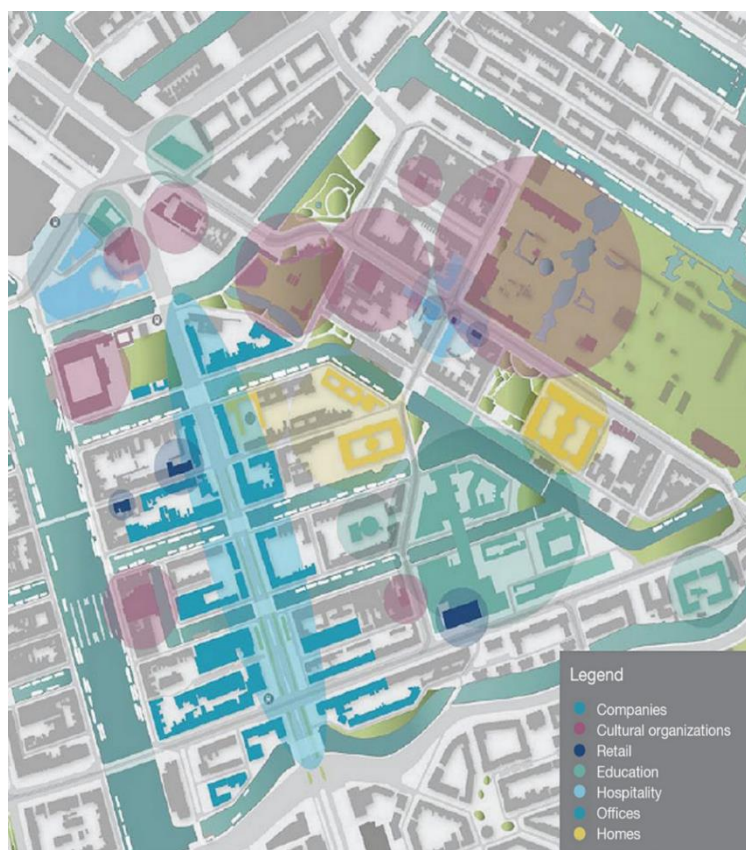


Fig. 04 Function distribution of the Weesperbuurt /Plantage neighborhood
Source: Drawn by author

⁴ Gemeente Amsterdam 2015: 19-20.

⁵ Gemeente Amsterdam 2015: 21-22.

⁶ <http://www.uva.nl/>

to 50,000 people including employees, tourists and students who do not live in this neighborhood visit this place every day. This number is so large compared to the resident population (about 7,500 people) of this area.

Research Methods

According to research questions and objects of this study, I adopt three research methods: document research, questionnaire survey and comparative study method.

In this study, the method of documentary research is mainly used to collect the general information of the Weesperbuurt/ Plantage neighborhood and the CREA cultural center. For the Weesperbuurt/ Plantage neighborhood, like I have done in the second report, I focus on analyzing the demographic characteristics of this neighborhood. Most research materials derive from the *Amsterdam in cijfers 2015*, an annual report of the city Amsterdam issued by the Research and Statistics Office of Amsterdam municipality. As the target user group of this study is local residents, understanding of their basic demographic figures pave the way for the further comparative analysis between the city of Delft and Amsterdam.

Questionnaire survey is a frequently-used social research method to get first-hand information. By mean of this survey, we could see the local residents' attitude towards to the CREA culture center, and meanwhile, we could know what kinds of facilities in this center they usually use and what kinds of events they prefer to join, which provides us a reference to formulate programme for the graduation project in Delft.

The reason why I choose the comparative study method is that we can never make investigation about people's attitude towards a thing that does not exist. We can only study the similar cases and learn experience from them.

Findings and analysis

(1) Demographic characteristic of the Weesperhuurt/Plantation neighborhood

Just like I have done in the second report, I intensively study demographic characteristics of local residents and try to make a comparison with that of Delft. All the information is derived from the *Amsterdam in cijfers 2015* and *stadsdelen in cijfers 2015*.

Key demographic figures of the Weesperbuurt/Plantation Neighborhood:
Residents

Population (January 1, 2015)							
Area	Age in years						
	2011	2012	2013	2014	2015		
					total	men	women
Weesperbuurt/Plantation	7518	7405	7719	7682	7603	3901	3702
Amsterdam	780559	790044	799442	811185	822272	405220	417052

Chart. 01 Demographic characteristic -- Population
Source: Amsterdam in cijfers 2015

By the year 2015, the population of the Weesperhuurt/Plantation neighborhood is 7603. The number of men is 3901 which accounts for 51.3% and the number of women is 3702 which accounts for 48.7%.

Population by age (January 1, 2015)								
Area	Age in years							total
	0-3	4-12	13-17	18-24	25-49	50-64	65+	
Weesperbuurt/Plantation	245	368	176	1029	3265	1451	1069	7603
Amsterdam	39981	72727	35866	85479	346315	144370	97534	822272

Chart. 02 Demographic characteristic – Population by age
Source: Amsterdam in cijfers 2015

As to the age distribution, we could see from the above chart that the population of age group 18-24 is 1029, which accounts for 13.5%, about 3% higher than the average figure of the city Amsterdam. We could infer that because of the development of the Roeterseiland Campus, there are more and more students gathering in this area. Some students may find their apartments in this neighborhood and live nearby their university. Another remarkable feature of age distribution of this neighborhood is the high proportion of elders. 14.1% of population who live in this neighborhood is over 65 years by the year 2015, which is higher than the average figure of Amsterdam (11.9%). It is probably because of the existence of the three health care facilities in this area.

Educational level of population between 15-74 years (by the year 2012)			
Area	Educational level		
	Low	Middle	High
Weesperbuurt/Plantation	13%	28%	59%
Amsterdam	27%	34%	39%

Chart. 03 Demographic characteristic – Educational level
Source: Amsterdam in cijfers 2015

As to the educational level of local residents, the chart. 03 illustrates the fact that residents in this neighborhood have a good education background. More specifically, 59% of population who live in this neighborhood reach high educational level. This is much higher than the Amsterdam average (39%). Besides, there are 28% of population reach the middle educational level.

Average personal income by gender (by the year 2012) (x1.000 euro)			
Area	Average personal income		
	Men	Women	Total
Weesperbuurt/Plantation	44.9	33.2	39.3
Amsterdam	38.0	28.2	33.1

Chart. 04 Demographic characteristic – Average personal income
Source: Amsterdam in cijfers 2015

The above chart shows the figure of average annual personal income. What we could learn from the chart is that the residents who live in this neighborhood

have a relative high income reaching 39.3000 euro per year on average, which is much higher than the average level of Amsterdam (33.100 euro).

Households and housing

There are 5,000 households in the Weesperbuurt/Plantation neighborhood. 65% are single households. 13% of all households have a family, which is lower than the Amsterdam average level (25%).

The average disposable household income is 35,700 euro which is higher than average level of the center district. This figure indicates that families in this neighborhood have better financial condition which enables them to satisfy their mental and cultural demands.

As to the housing condition, the figure shows that social housing are few in this neighborhood (about 30%). However, on the contrary, the proportion of private home increased during last 10 years, rising from around 20% in 2002 to almost 30% in 2012. In addition, student residences are few in this neighborhood (only 248 in total), which is about 5% of all households. According to an appreciation survey of neighborhood, we could know that the residents appreciate the Weesperbuurt/Plantation neighborhood with a high rating: 8.2 on average, which is higher than Amsterdam average (7.3). This figure tell us that citizens in this area satisfy their living condition and atmosphere.

(2) Comparative analysis of demographic characteristic between the downtown of Delft and the Weesperhuurt/Plantation neighborhood

On the basis of above mentioned demographic research findings of the Weesperbuurt/Plantation neighborhood, we could conduct a comparative analysis between the downtown of Delft and the Weesperhuurt/Plantation neighborhood. This comparative study enables us to have a better understanding of target user group – local residents and figure out the similarities and differences of target user group between these two areas. It will pave the way for the further questionnaire survey. In the following part, I will choose some key demographic indices to make a

Comparative analysis of key demographic characteristic Indices (by the year 2015)						
Area \ Index	Downtown of Delft			Weesperbuurt/Plantation neighborhood		
Population	12683			7603		
Education level (between 15-74 years)	Low 25%	Middle 30%	High 45%	Low 13%	Middle 28%	High 59%
Average personal income (per person per year)	35.600 euro			39.300 euro		
Household disposable income	35.200 euro			35.700 euro		

Chart. 05 Comparative analysis of key demographic characteristic Indices
Source: Amsterdam in cijfers 2015 & stadsdelen in cijfers 2015

comparing.

This comparative analysis will focus on four indices of residents in both areas, which are population, education level, average personal income and household disposable income respectively. As to the figure of population, although the amount of residents of the downtown of Delft is nearly one time more than that of the Weesperbuurt/Plantation neighborhood, we could recognize that both areas have the same age structure if we take a closer look. Firstly, the city of Delft is regarded as a typical university city and the amount of youths whose age between 18-24 years is large. As I have mentioned in the second report, there are two thirds of all students who study in Delft, about 14,880, living in the city. The same thing is happening to the Weesperbuurt/Plantation neighborhood. Due to the existence of the Roeterseiland campus of the University of Amsterdam, the proportion of youth (18-24 years) is 13.5%, which is higher than the average figure of Amsterdam (10.4%) and also higher than the proportion of other age groups. The data shows the fact that youths are gathering in both areas. Another significant feature we could find during the comparing is that both neighborhoods experience population aging. The amounts of senior citizens (over 65 years) increase in both areas. This fact asks us to take the requirements of these elder people into consideration in the design process.

As to the figure of educational level of local residents, we could find that most of the inhabitants of both areas receive middle or high level education. More specifically, 30% of population in the downtown of Delft reach middle educational level and 45% reach high educational level. For the Weesperbuurt/Plantation neighborhood, the percentage of high level educated population is extremely high, reaching to 59%. Meanwhile, there are 28% residents receiving middle level education. Through this comparing, we can discover that most of the inhabitants of these two areas have a relative good educational background.

In order to compare the financial condition of residents in both areas, I choose two significant indices -- the average personal income and the household disposable income to analyze. As can be seen from the chart, the average personal income of residents who live in the downtown of Delft is 35,600 euro per person per year. This figure is higher than the average standard of the whole city (30,400 euro). Correspondingly, this index of people who live in the Weesperbuurt/Plantation neighborhood is 39,300 euro, which is also much higher than the average income of Amsterdam (33,100 euro). Through this comparing, we could know that although there exist about 6,000 euro difference of average incomes between these two areas, they are both higher than the local average level, which reflects the fact that residents in these areas have good financial condition. The household disposable income is an important indicator which shows the living standard of local residents. Both neighborhoods have almost the same household disposable income, 35,200 euro per year in Delft and 35,700 euro per year in Amsterdam respectively. By comparing this indicator, we could know that inhabitants of both neighborhoods have the same living standard, which enables us to infer that they probably have the same demand of cultural life.

To sum up, through the comparative research of these key indices of demographic characteristic, we find that residents who live in these two areas have almost the same demographic characteristic in terms of age structure, educational level and financial condition. So, on this basis, we can assume that inhabitants of these two neighborhoods may have the same preference of cultural requirements, which means that the new archive of Delft and the CREA cultural center may have the same user base.

(3) Questionnaire and analysis

In the prior part, we get a basic understanding of target user group – local residents, and find that the user groups of both neighborhoods have almost the same demographic characteristics. On this basis, a questionnaire geared towards residents who live in the Weesperbuurt/Plantation neighborhood was designed to retrieve the information about their use condition of the CREA and their attitudes towards this cultural center. It would be helpful for us to infer the Delft's resident's attitude towards the new archive by.

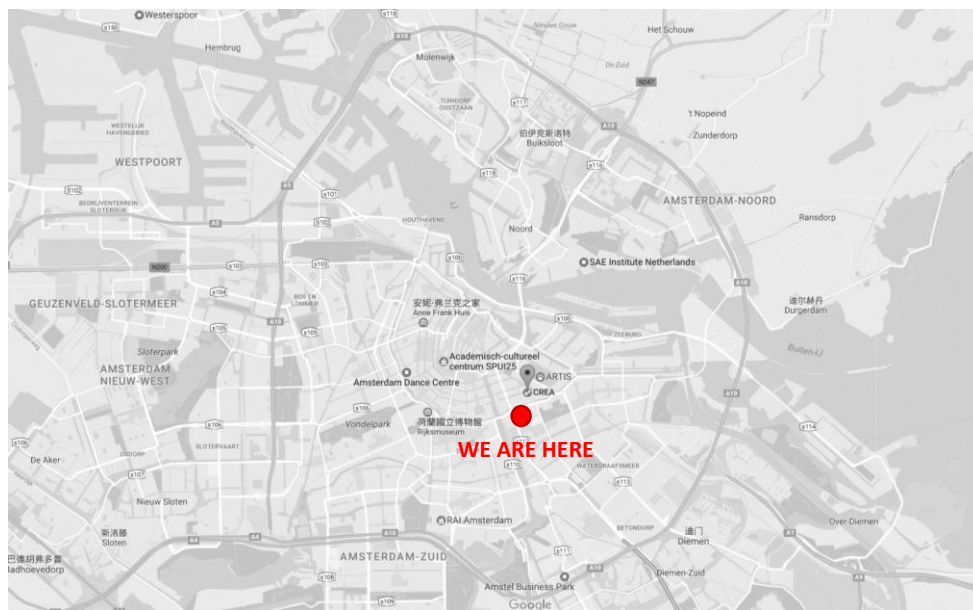
Before the formulation of the questions, some underlying assumptions are made, which base on general studies and previous researches and the questions formulated in the way to test these assumptions. These assumptions include: 1 the demographic characteristics including age, gender, educational level and financial condition of residents may influence local residents' attitude towards the CREA cultural center; 2 the demographic characteristics of local residents may affect their frequency of utilization of the CREA cultural center; 3 the distance to the CREA may affect their frequency of utilization; 4 the services and events provided by the CREA may affect their usage of this center.

The survey was done on a cloudy Tuesday (13-12-2016). The survey was divided into two parts. The first part started at 10.30 and finished at 13.00. The second part started at 15.30 and finished at 17.00. It totally costs about 4 hours to finish the whole survey. The questionnaires were filled out by participants on the street around the CREA cultural center. There are totally 28 respondents joining the questionnaire survey. As to the respondents, I only choose residents of Amsterdam as my target group. Although the survey is conducted in English, all the respondents are very proficient and talk-active in this foreign language. The average duration of engagement between inquirer and respondent is 9 min.

Questionnaire CREA CULTURAL CENTER

1. Who are you?

- Age: 0-25, 25-40, 40-100
- Gender: Male Female
- Education level:
 - High school or lower
 - Bachelor
 - Master or higher
- Average personal income:
 - 18.000 euro or lower. 18.000 - 25.200 euro
 - 25.200 – 47.400 47.400 euro or higher
- Please indicate roughly where you live on the map or write down the address:



2. Have you ever used the CREA cultural center on Roeterseiland Campus

Yes

No

3. What kinds of events and activities you have joined (Multiple choice)

- A) Joining courses or workshops provide by the CREA
- B) Attending debates or lectures
- C) Attending performances
- D) Visiting the CREA café
- E) Never use it
- F) Others: _____

Questionnaire CREA CULTURAL CENTER



4. How often do you join events and activities in the CREA in the past year
 - A) Never
 - B) One time or several
 - C) Regular

5. What is your purpose of being at the CREA
 - A) Cultivating interests
 - B) Relaxing
 - C) Socializing
 - D) Others: _____

6. When do you usually join events or activities in the CREA
 - A) At weekday daytime
 - B) At weekday evening
 - C) At weekend

7. To what extent, the services provided by the CREA meet your need
 - A) Completely meet
 - B) General meet
 - C) Merely meet
 - D) Cannot meet

8. The effect of the CREA cultural center bring to the local neighborhood:
Which scenario fits to you best? (Multiple choice)
 - A) The CREA is an invaluable addition to the neighborhood, which enriches residents' cultural life
 - B) The gathering of students in CREA brings vitality to neighborhood
 - C) The presence of the CREA does not have any impact on local neighborhood
 - D) The presence of the CREA does not have any change of my ordinary life
 - E) The CREA brings some troubles to the neighborhood
 - F) The CREA is an annoying addition to the neighborhood, which disturbs the normal life
 - G) I have no idea about it

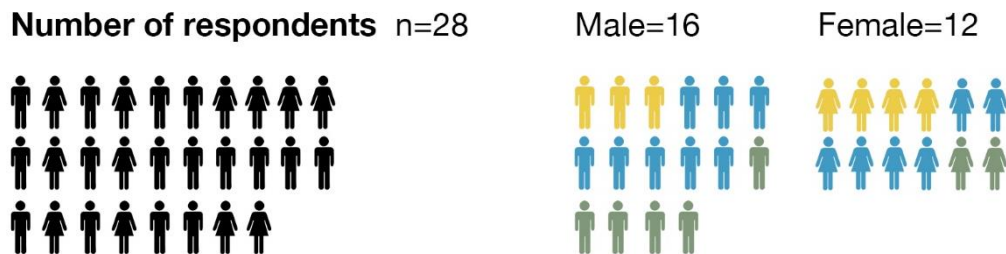
Thank you very much for your time and patience!

Results and discussion of questionnaire

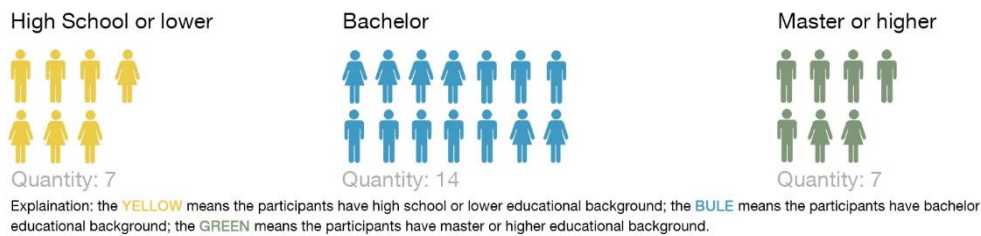
Who

The first part of this questionnaire survey is to get the basic information of all the participants according to the assumptions I have made before, which includes gender, age, educational level, financial condition and location of residence.

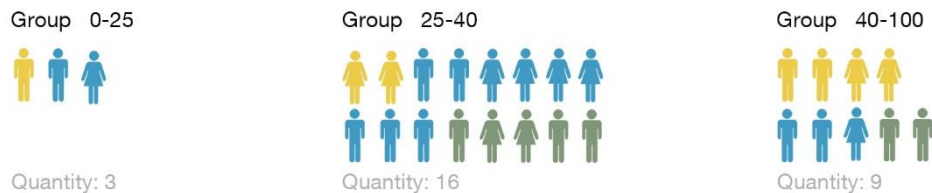
There are total 28 participants answered all questions of the questionnaire. According to their responses, among these 28 respondents, there are 16 men and 12 women. There are only three participants younger than 25 years old. 16 participants' age are between 25-40 years old and 9 participants are older than 40 years old. As to the education level, 7 persons have high school or lower educational background. 14 persons are bachelor and 7 persons are master or higher. Besides, most of the participants have relative good financial condition. More specifically, only 6 persons' incomes are lower than 18,000 euro. 8 persons' incomes are between 18,000 and 25,000 euro and 11 persons' incomes are



Education



Age



Financial condition

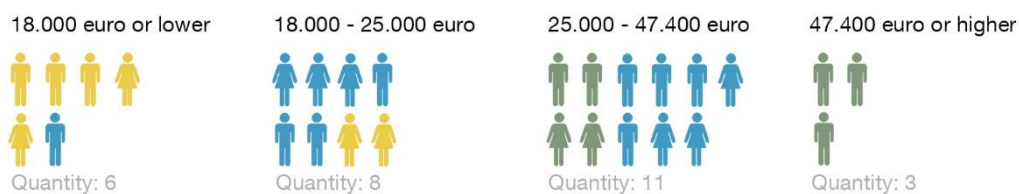


Diagram. 01 Basic information of respondents
Source: Drawn by author

between 25.000 and 47.400 euro. There are also 3 persons' incomes are higher than 47.400 euro.

Another important information of participants is the location of their residence. Because the distance to the CREA may have a great influence on their frequency of utilization of this cultural facility. According to the responses, I draw a map which could clearly show their residence location.



Diagram. 02 Basic information of respondents – residence location
Source: Drawn by author

As can be seen from this map, most of the respondents inhabit within four kilometers to the CREA center, which amounts to 24 persons. Among these 24 participants, there are 14 people residing in the Weesperbuurt/Plantation neighborhood and 4 people living in the adjacent neighborhood. Besides, there are 4 respondents living in the outskirts of the city of Amsterdam and all of them are employees who work in this area.

Usage of the CREA cultural center

In the second part of this survey, I try to collect the information about the participation condition of the CREA cultural center by residents. According to the responses, I find that 15 persons use to visit the CREA center, which accounts for 53.6%. This figure is higher than I have thought. Among these 15 persons, 9 persons are living in the the Weesperbuurt/Plantation neighborhood and 4 persons residing in the nearby neighborhood which is less than two kilometers to the CREA. Only one respondent who live in the outskirts of Amsterdam used to visit the café in the CREA once.



Diagram. 03 Usage of the CREA cultural center
Source: Drawn by author

The most popular activity of inhabitants doing in the CREA is having café (35.7%), which is followed by attending a performance (17.8%). Besides, there are 14.3% people choosing to have courses or workshops and 10.7% people attending the debates or lectures in the center. What can we learn from these figures is that the CREA café is the most attractive place for residents. Besides the good quality of their coffee, the charming environment and nice view along the canal is another significant reason to attract people. We could infer that local residents may sit along the canal and have a cup of coffee to relax themselves. Another interesting finding is that the people who attended performances in this center are all residents of the Weesperbuurt/Plantation neighborhood. We could image that local inhabitants may attend favorite performances after their dinner as

leisure activities.

Most of the respondents visit the CREA center aperiodically, which accounts for 35.7%. There are only five persons attending activities or events regularly. Among these five persons, four persons join a course or workshop to development their hobbies. Interestingly, these is an old men visiting the CREA café every weekend. During the talking, he tells me that he uses to be a professor of the University of Amsterdam. Almost every weekend he goes to the café in the CREA because he likes and misses the atmosphere of the university.

As to the purpose of being at CREA, most of the respondents go there just for relaxing. Only three respondents visit the CREA for their interests, which is fewer than I have thought. As to the reason of this fact, it is partly because the courses and workshops (mostly are art-related) which are set up by the CREA center have limited appeal to local residents.

When we look at the using periods of respondents, we could notice that residents usually visit the center at weekend or weekday evening.

In conclusion, the information we have collected about the residents' usage condition of the CREA center through this survey tells us that the CREA does bring some benefits to local residents' life. By providing excellent performances, lectures, courses and relaxing place, the CREA enriches daily cultural life of local inhabitants.

Residents' attitude towards the CREA cultural center

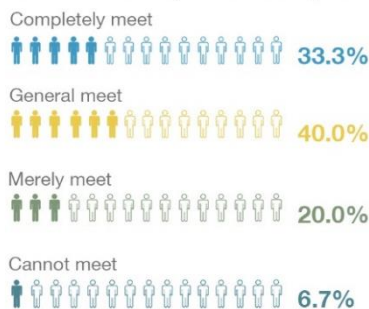
In the last part of this survey, I try to figure out local residents' attitudes towards the CREA cultural center. These attitudes include two parts. One is their evaluation on activities and services provided by the CREA, whether they meet their requirements. The other one is their opinion on the development of the Roeterseiland campus and the CREA center. Whether the students' activities appearing in this neighborhood have effect on local residents' life or not.

According to the responses of all 15 participants who use to join the CREA's activities, we could know that about three forth participants have positive judgments on the services provided by the CREA (as shown in the diagram. 04). More specifically, because of the good quality and comfortable environment, the CREA café is the most popular part of this center. Most of the respondents who use to visit this café have good evaluation on it. Besides, although not the most popular one, the excellent lectures and debates organized by the CREA get the best evaluation. All the three respondents who use to attend these lectures or debates give high marks to the contents of these activities and feel that they completely meet their need.



Fig. 05 The CREA cafe
Source: <http://www.crea.uva.nl/cafe.php>

● To what extent, the service provided by the CREA cultural center meet your need



● The effect of the CREA cultural center bring to the local neighborhood:

Which scenario fits to you best? (Multiple choice)

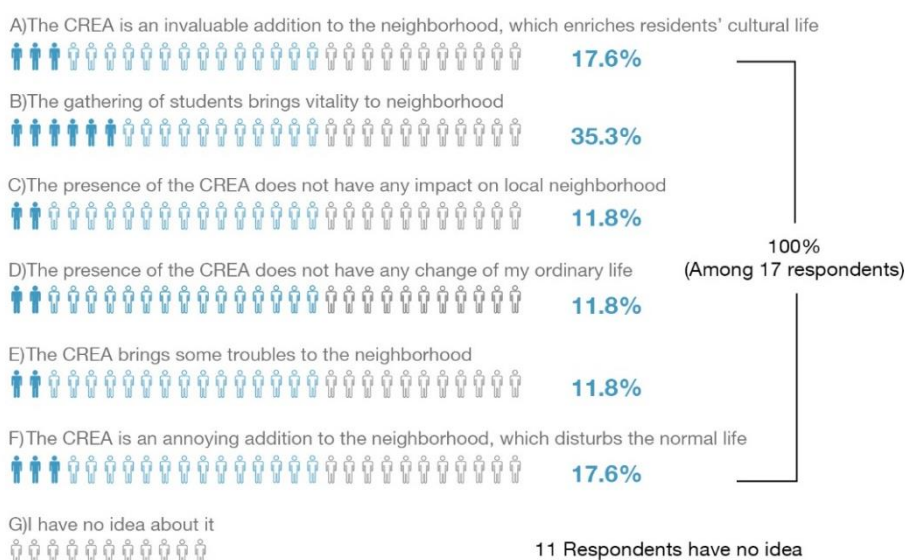


Diagram. 04 Residents' attitude towards the CREA cultural center
Source: Drawn by author

As to aspect of the effect on daily neighborhood's life, over 50% respondents (among 17 respondents, because there are 11 respondents have no idea about this question) have positive judgments toward the appearance of the CREA in the neighborhood. Three persons believe that the CREA is an invaluable addition to the neighborhood, because it enriches local residents' cultural life. Besides there are 6 persons holding the view that the gathering of students brings vitality to the neighborhood. But it is also worth to recognize that about quarter of respondents (5 people) have negative judgments on the CREA. They think that it disturbs their normal life, such as the disorderly bicycle parking, noise made by students and etc. In addition, there are four respondents holding a neutral view of this question.

To sum up, the attitudes towards the CREA cultural center varied from person to person, but most of respondents hold positive opinion on this joint-used cultural facilities. What we can learn from the CREA case is that the activities and services provided by the cultural center are essential to attract local residents. Besides, we should take the negative effects brought by the cultural center into full consideration and try to avoid them.

Conclusion

Through this profound case study, we get a relative comprehensive understanding of the role of the CREA cultural center in the Weesperbuurt/Plantation neighborhood. We know what the center provides for citizens and how it attracts people to use its facilities and join events.

First of all, there is no doubt that the key to the success of the CREA is its well-organized programs and advisable joint-use strategy. The CREA cultural center provides regular and high-quality activities including classes, performances, debates and lectures. More importantly, all these activities are publicly accessible. Local residents can choose and join them according to their interests. Precisely because of this joint-strategy, the CREA cultural center becomes a successful example of collaboration between the university and the neighborhood. This is also the reason why the CREA attracts so many local residents to visit this cultural center. In my opinion, in addition to these absorbing activities, the amazing café in the CREA is also an important factor to engage people living around.

Besides, the CREA cultural center formulates a feasible operation pattern to satisfy the needs of different user groups of this institution, which balances the requirements of local residents and university students. Actually, in many cases of joint-use university facilities, there exist serious conflicts between student users and public users which obstruct the development and affect the efficiency. In the CREA, a thorough operation pattern is set. The most important rule is the reservation mode. If you want to use the facilities including studios, theater and music hall in the CREA, you must reserve them two months ahead which enable the organizer to coordinate demands from different parties. In addition, there is a strict limitation to use purposes of these facilities which could ensure good run of each activity. Another significant rule is the priority mechanism. In this cultural center, students and college/university-related organizations have a priority position, which could ensure its main role – a student cultural center.

Last but not least, as a designer, we also want to know what we can learn and what valuable experience we could derive from the CREA cultural center for the new project in the Delft. In order to get the answer, with the help of the statistics analysis software – SPSS, I make a profound correlation research between the demographic characteristics of residents and their attitudes towards the CREA center, which figures out the inner link between the target user group and their usage and attitude of the CREA.

I find that among all the demographic characteristics of target group, there are only three factors - education level, financial condition and distance to the CREA - have effect on residents' intention of use. More specifically, the result shows that the higher educational level people receive, the more likely for them to join events and activities in the CREA; the better financial condition people have, the more likely for them to join events and activities in the CREA. Moreover, the one who lives adjacent to the CREA center are more likely to use it. However, the other characteristics, including age and gender, do not have any correlation with usage of the CREA center.

What we could learn from this analysis is that the specific demographic characteristics and residence location of potential users have significant effect on utilization frequency of one social institution. We could infer that the user groups in both neighborhood may have the same preference of cultural requirements, because these three indices (education level, financial condition and living location) of residents in both neighborhood are very alike (as shown in Chart. 05). So, we could image that the well-organized performances, debates and lectures may be the most popular activities in the new cultural center in Delft for the locals. Besides, a good café is always an attractive point for local residents where they can relax themselves and meet others.

Although there exist several similarities between the condition of the downtown of Delft and the Weesperbuurt/Plantation neighborhood, we still should notice the differences between both when making use of experience derived from the case CREA. Firstly, unlike the Weesperbuurt/Plantation neighborhood, Delft is regarded as a knowledge city, where the downtown hosts many knowledge-intensive labor force. We should pay close attention to their requirements when we set the program and arrange the activities of this proposed project. Besides, unlike the CREA cultural center which is part of a campus, the location of the new archive in Delft is in the old city center which is detached from the main campus of the TU Delft. How to attract students to come and use this facilities is crucial in the Delft case. Fortunately, this distance gap can be partly compensated by the housing of many students in the inner city of Delft.

To sum up, in my opinion, the graduation project proposes a move of the Delft University of Technology to the historical center as both a further invitation to the public and a way of embedding Delft students and academics in the city itself. In the larger social framework, it is a logical and desirable project to reunite the city and the university. However, how to balance the requirements of local residents and university students and how to unite these two user groups are the key to the graduation project in the downtown of Delft. By means of combining functions, activities and users, I think that installing a multi-function city 'living room' on site is the best solution. This 'living room' is supposed to provide a meeting place for local residences, students and even tourists, in which people can enjoy performances, attend lectures and debates and visit exhibitions. Meanwhile, this space is also an archive, a storage room for the TU Delft collection, which enable the users to sense the long and glorious history of the university. The attempt is then made to provide an attractive cultural center not only for university students but also for local residents.

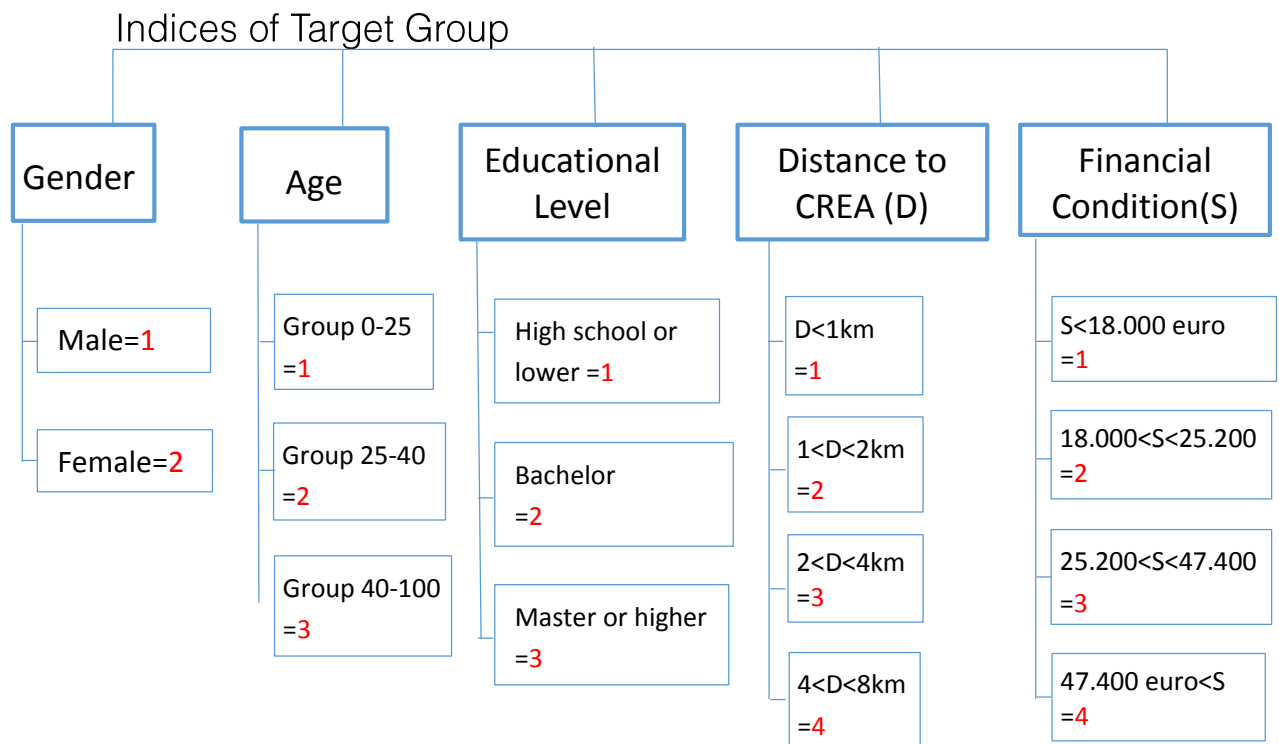
Appendix

SPSS correlation analysis

In the research, I use the SPSS software to analyze data acquired from questionnaire to figure out the inner link between the target group and usage of CREA center. Here shows the analysis process and result.

Before analysis, we need to pre-process the statistic I get from the Questionnaire. The most important step is to group the demographic characteristics and give them index.

Data pre-processing



Correlation between the usage condition and educational level

		Correlation analysis (Spearman)	
		Educational level	Join
Education level	Correlation index	1.000	.655**
	Significance	.	.008
	N	28	28
Join	Correlation index	.655**	1.000
	Significance	.008	.
	N	28	28

** . Correlation remarkable at 0.01 level

Correlation between the usage condition and financial condition

		Correlation analysis (Spearman)	
		Financial condition	Join
Education level	Correlation index	1.000	.756**
	Significance	.	.008
	N	28	28
Join	Correlation index	.756**	1.000
	Significance	.008	.
	N	28	28

** . Correlation remarkable at 0.01 level

Correlation between the usage condition and distance to the CREA center

		Correlation analysis (Spearman)	
		Distance to CREA	Join
Distance to CREA	Correlation index	1.000	.612**
	Significance	.	.003
	N	28	28
Join	Correlation index	.612**	1.000
	Significance	.003	.
	N	28	28

** . Correlation remarkable at 0.01 level

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