Research & Urban plan
Right from the start in the research process the social hardships of the South Chicagoans became apparent. Immediately this embedded a big social agenda in the project. At the same time, for the project location at Lake Michigan there was already an urban plan and strategy developed. We all agreed: the plan by SOM currently being implemented on the site seemed one of the worst possible ideas and the last thing the neighborhood needs. Researching other neighborhoods in Chicago that are doing significantly better on all levels, we tried to find solutions. The missing link seemed to be a certain acceptance of the current situation; South Chicago simply is not doing well. Implementing a major high-end development project designed for middle and higher social classes is not going to solve South Chicago’s current problems.

This really lead us as a group working towards an urban intervention with the aim to design a strategy that would not be as forceful or intrusive, but a strategy that aims at a more gradual character of implementation. The most important considerations are that we try to break with the mono-identity of the neighborhood surrounding the development area. We strongly believe that the homogeneous organization of the city’s urban block structure is one of the main causes of the lack of social diversity in South Chicago. As a result we tried to break with the blocks rigidity and looked for solutions that can create a heterogeneous environment, in which various dwellings house a diverse group of people that rely on a multitude of economic opportunities, thus making them more flexible to adapt to the uncertain future of post-industrial American cities. We named the plan the *Relational City*

"We should not try to predict what will happen in the future, but try to make provisions for the unforeseen." - Habraken, 1961

This quote really captures our intentions for the urban plan and shows the relevance of the topic of flexibility within architecture, especially in times of economic crisis and uncertainty.
In spite of its relevance however, quite few buildings have been developed in accordance with the support and infill ideology. The reason for this might be that the system when implemented has the tendency to become very pragmatic and technical, almost neglecting the buildings appearance. Therefore, no matter how interesting the theory and ideas, the support and infill system understandably do not really appeal to the greater public (or architects and developers for that matter).

Projects that were able to surpass this aesthetic dogma however are Constant Nieuwenhuijs’ New Babylon and Yona Friedman’s Ville Spatiale. Both are projects with a critical undertone towards the post world war technological advances and their possible effects on our human society. These ideas where developed pretty much simultaneous with Habrakens theories. Nieuwenhuijs and Friedman give impressions, ideas and great theoretical insights of their visions on what live would be like in their utopias. Their images show very unconstrained and spacious designs of communities high above the ground in units placed freely within structural webs.

Despite the technical and systematical profundity of especially Friedman, their projects always where such big scale that they seemed to be destined to a life on paper and in models, whether this was intentional or not.

So, would it be possible to create a pragmatic solution for a flexible building, a physically growing building, that can respond to current and possible future needs, while capturing a sense of freedom and inspiration for diversity and dynamism within its manifestation?

Architectural Project
Flexibility within the building is found in a system that breaks with the urban block structure that currently produces a very rigid system of growth, which does not encourage breaking with the homogeneity of the area. I tried to implement a system that converts the current 2D pattern of growth into a 3D pattern that has improved possibilities for small-scale heterogeneous developments.

The urban plan is grafted on implementing a cultural program in order to aid both the new plan and the existing neighborhood to develop. My building supports this by following this program. I do not choose a very specific program however. Culture, effectively, is the sum of ways of living built up by a group of human beings and transmitted from one generation to another. So it is very much about sharing. Thinking about
sharing I was enticed into creating a large open space on the ground floor, thus raising the program into the air. This development led me to an image of a cloud of programmatic units inside a structure with large spans covering the entire plot. This large structure had the potential of being the framework for growth I was looking for and at the same time break with the rigidity of the existing urban block system.

The voronoi structure as it is called, is used as a tool for dividing certain areas. It creates points based on structural perimeters such as span, material factors and the size of the area and then divides it into sections based on these inputs. I created a similar division with my locations plot with the help of a computational script. This allowed me to see where my structure had to be placed in order to be as efficient as possible.

The manifestation of this image however, was something I struggled with for a long time. It was logical to look for a structure following lines of simple growth and standard grid parameters. This would help me create a clear flexible framework for growth, but its inevitable rectangular appearance would not match with the intentions of the urban plan we proposed. At the same time I would lose the image of a challenging, provocative structure to encourage diversity and heterogeneity. This consideration led me to a structural system that is innovative, as it can be implemented gradually, and at the same time be a framework for a heterogeneous ensemble of programmatic units.

Starting off with a three-hinged-arch portal structure which is capable of big spans, the voronoi structure changes the portals linear character to follow its radial orientation. This evolution allows for a structural system that potentially develop in all directions, without the boundaries of the urban block.
The voronoi and the portal structure combine into a parasol structure that now forms the base of the framework for growth.

Portal + voronoi = parasol

The structure will be a framework for a cloud of programmatic units inside that can adapt to future demands and grow and at the same time the structure itself will grow simultaneously in order to provide the needed space.

The 'cloud'

Final development phase

Through its ability to grow the building will always be what it needs to be according future demands. In other words, the users will determine the buildings appearance and size.
Conclusion
Reading on Friedman and the Ville Spatiale, he recognizes the fact that structures like this cannot really be planned. If a building with such high possibilities in flexibility, diversity and high levels of user participation is to take shape, it is impossible to predict what it might look like. This is very much in line with also Habrakens and Nieuwenhuijs’ conclusions.

In the contrary of Nieuwenhuijs en Friedman I molded my building into something that has an actual appearance and hereby surpasses the notion of suggestion. My project is not only about a strategy and a social program but is also very much about an investigation of what the actual possibilities are of physically realizing such a building.

From a social point of view, I think my final design has potentials and opportunities in creating a neighborhood society which can largely govern itself. The rules for growth and the buildings final appearance however, are not in any way supposed to impose themselves on the location as being the single true solution for the challenges. They are obviously mere findings, based on research, structural considerations and personal preferences. What I am sure of is the fact that a framework for urban growth does not need to follow a linear structure. Using a system like voronoi can help create systems that grow in a seemingly random fashion, but actually are based on essential structural characteristics.

Technically, my project is a buildable object and therefore ‘works’, but whether it is ‘the’ solution for the challenges met in South Chicago and similar locations? I tend to agree with Friedman:

“It cannot be planned, it can only happen”
Y. Friedman, on the Ville Spatiale

Process
First of all, I would like to point out the multitude of fields of discipline that have been covered in the Chicago studio. We started with research, elaborated on our findings in a manifesto and substantiated these ideas into an urban plan. All before even starting designing a building yet, let alone filter all the impulses of the past 6 months of investigating, researching and reflecting.

Also the switch from working in a group to individual work brought some challenges. Probably, for the last time in my life I would be the only decision maker for a project, so I really wanted to push myself far this time. In my case “far” would be mostly in the conceptual phase where a good narrative and conceptual story are the most important. Being schooled in the University of applied sciences before I started this master, I would say my strengths are on the technical side of architecture. So I tried to really step out of my comfort zone to learn as much as I could in my final project before graduating.

This approach was very interesting, partly liberating me of my usual habits and constraints, but also giving me a hard time sometimes. Tending to over-think my considerations. Especially working alone can really bring your doubts and insecurity to the surface.

Looking back I think by giving a physical appearance to my investigations on a flexible framework, I succeeded in creating something that is to be read as an attempt to stimulate designers to think outside of the constraints of our current fabrication society and search for new solutions for the social and political challenges we face in post-industrial cities today.