Wearable Society

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Master of Science in Architecture – Digital and Material Technologies 2019

ABSTRACT

In this piece, I grapple with several questions: What types of architecture will the future hold? How will it influence and interact with us? How will it impact urban society? Wearable Society proposes a radical concept: future society will be the product of an intricate network of wearable units that act as manifestations of each individual citizen's needs, which can be linked together to create adaptive and transformable spaces. This piece envisions these wearable units and theorizes what its interactions would look like on the urban scale.

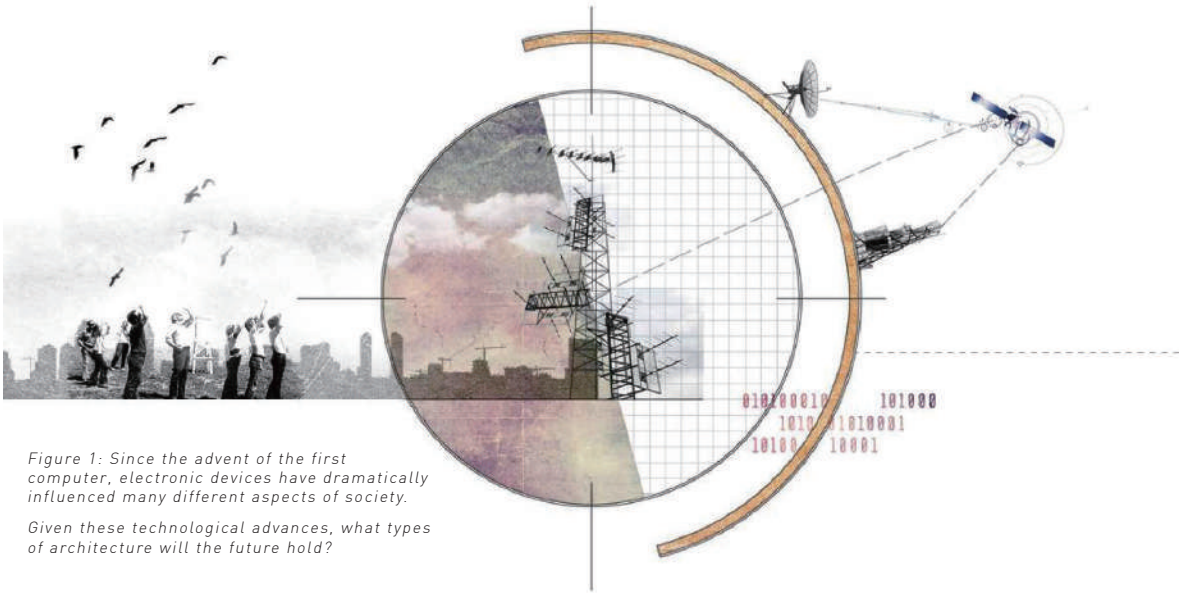


Figure 1: Since the advent of the first computer, electronic devices have dramatically influenced many different aspects of society.

Given these technological advances, what types of architecture will the future hold?

The Internet and big data have become integral to the society in which we live. Wearable technologies, such as the Apple Watch, Virtual Reality or Artificial Reality simulations, are slowly becoming an integral component of our aesthetic and I speculate that they have potential to enhance social connections and spatial organization on the urban scale. In imagining a future urban society, I boldly theorize that the urban form around us will be able to respond instantly to our social, physical, and emotional needs. In this society, I propose the development of small fabricated units, which will be able to change shape and size to form objects at different scales and with different materials. These may assemble together to form pieces of clothing and accessories, or may combine with other units to form furniture, buildings, and even cities. The Wearable Society is based on the constant interaction between scales, spaces, and people. It connects the development of architecture directly to people and their needs. In the Wearable Society, these transformable units allow people to live a nomadic lifestyle. People will be able to build temporary spaces, such as a personal office space that can be collapsed and shifted to a new location. Beyond this, these units adopt intelligent technology and are constantly learning; when two people are attached to each other's units, their units share information between themselves to create and develop more complex forms. With the connection of 50 people, a temporary building can be constructed and can evolve and change with its residents, creating a more permanent structure formed by the collective data of the the crowd. Scaling up, in an urban context, this means that the cityscape will reflect social harmony, conflict, and transformation. My thesis mainly emphasizes the capabilities of the digital age and how that might translate into the built world. It poses a unique opportunity to bridge the link between design and planning; how do the newest trends in architecture theory respond to the complexities of social living? What follows is an exercise in architectural philosophy, that aims to address some of these questions.

THE TRANSFORMABLE URBAN SPACE

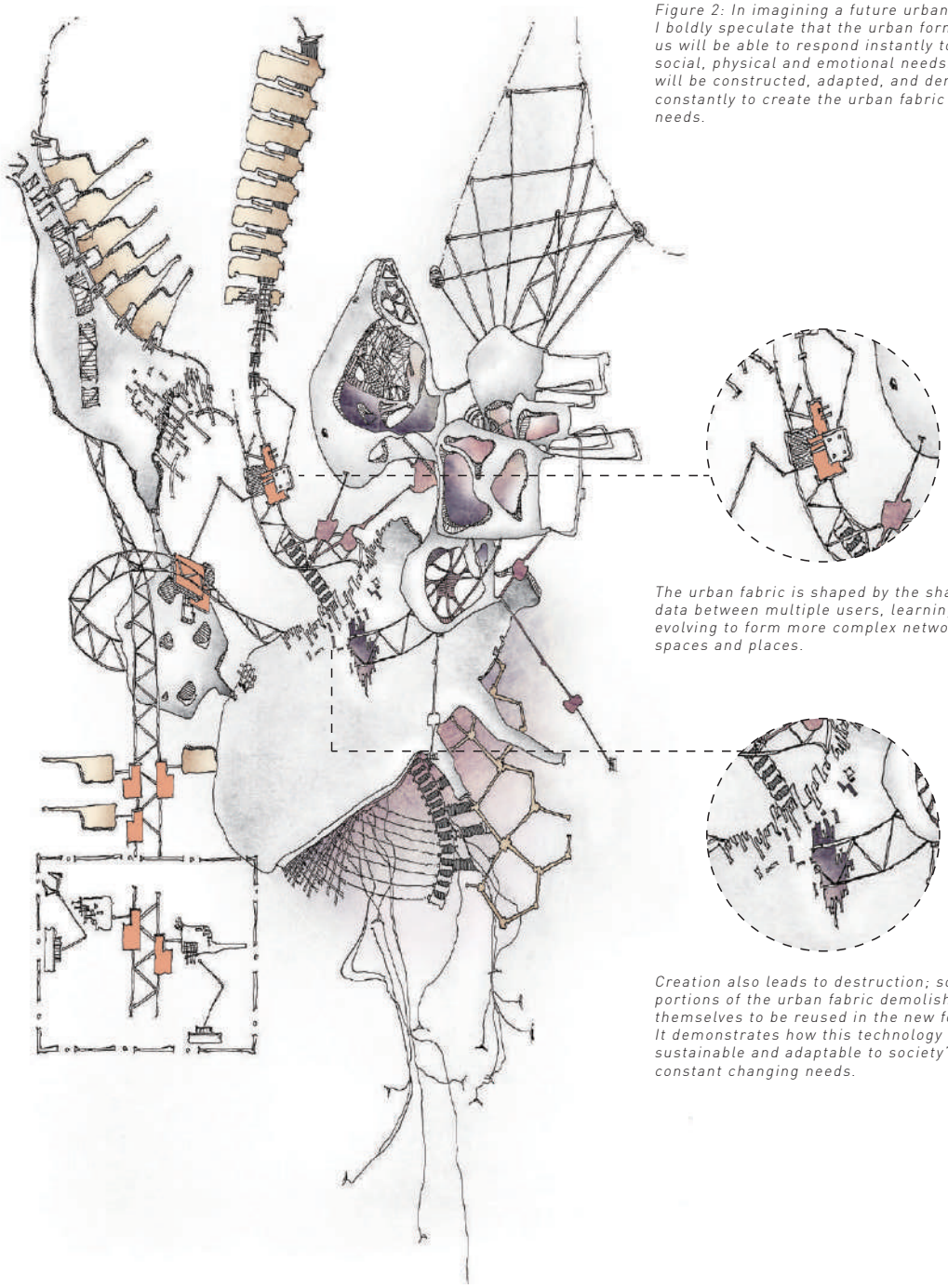


Figure 2: In imagining a future urban society, I boldly speculate that the urban form around us will be able to respond instantly to our social, physical and emotional needs. Spaces will be constructed, adapted, and demolished constantly to create the urban fabric society needs.

The urban fabric is shaped by the sharing of data between multiple users, learning and evolving to form more complex networks of spaces and places.

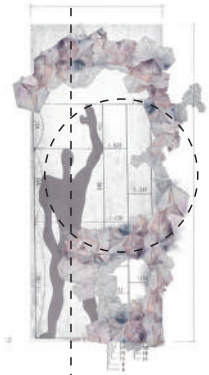
Creation also leads to destruction; some portions of the urban fabric demolish themselves to be reused in the new form. It demonstrates how this technology is sustainable and adaptable to society's constant changing needs.

IMAGINATION OF FUTURE LIFE: A PART OF ARCHITECTURE'S INTERIORS

Scale: XL

URBAN SCALE

Urban spaces are formed by the full agglomeration of multiple space scales, coming together to define and shape the urban fabric. These, like the units they are made up of, are receptive to larger societal needs. As smart technology, they are constantly learning and growing, feeding from data and current world trends to form the urban fabric of the future.



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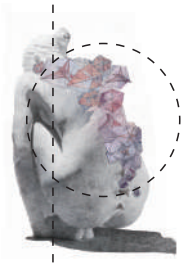
SPACE SCALE

By connecting with other people's units, the units are capable of morphing to hold structure, slowly building upwards to facilitate more complex societal needs. The sharing of data between these units allows for constant growth and quick response to changing social relationships. This tangible architectural space will be a true reflection of social demands.



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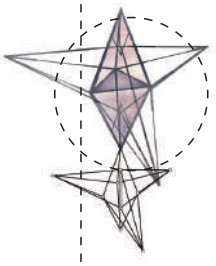
PRODUCT SCALE

By connecting 10-20 personal units, these new and more intricate units will respond to individual needs, forming products such as clothes and furniture.



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UNIT SCALE

I theorize that there will soon be a wearble technology which adapts to an individuals need. This transformable unit will be able to learn and evolve, changing its shape, size and form to respond to basic personal requirements.

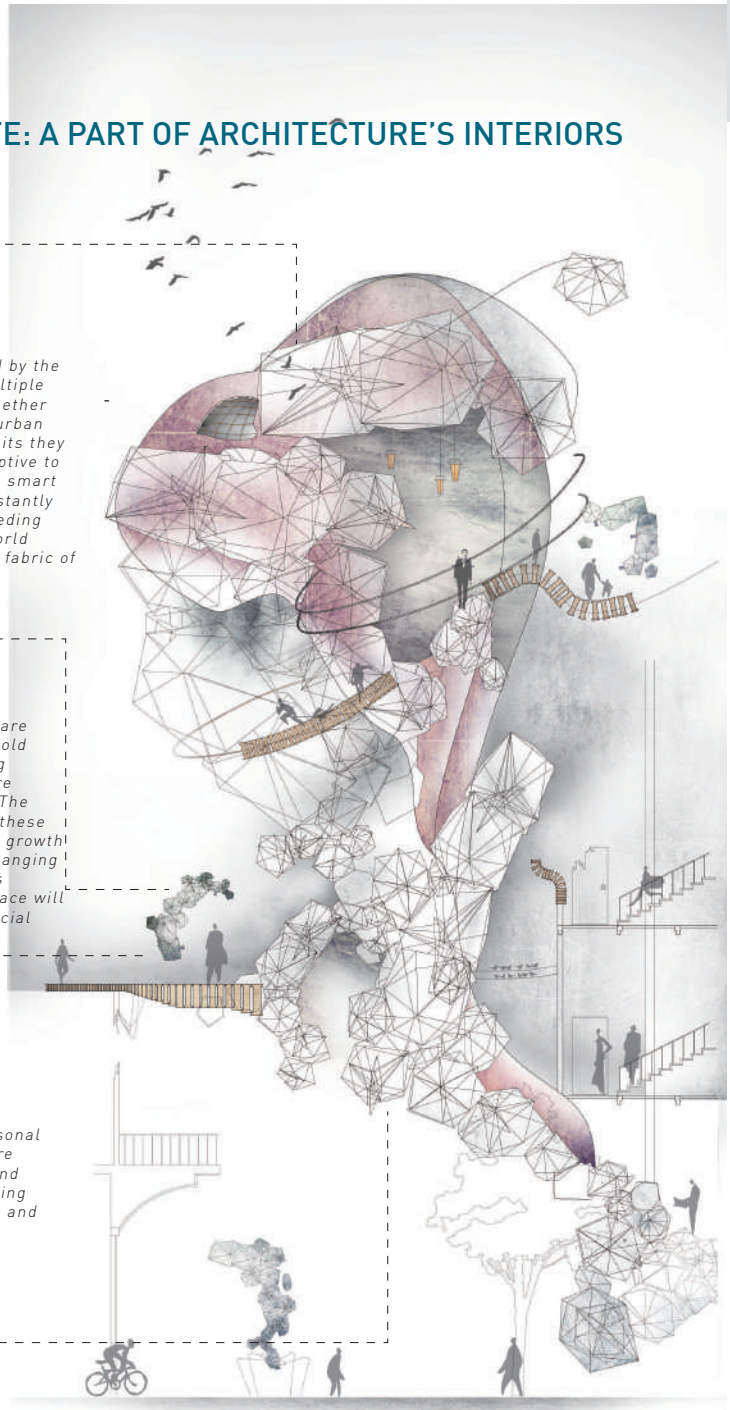

Figure 3: The evolution of the Wearable Society can be understood by visualizing the interaction of the smallest transformable unit across different scales. I hypothesize that future societies will create an adaptable urban space through the collaboration of these transformable units in the process outlined below.

IMAGINING A FUTURE LIFE: PART OF ARCHITECTURE'S INTERIOR

The urban fabric, its inhabitants, and its architecture interact across scales and space. The space and the furnishings composing the space will be smart. The space will change constantly, forming what society needs in the exact moment to move forward and coexist. ■

ABOUT THE AUTHOR

Ester Lo is pursuing a Master of Science in Architecture with a concentration in Digital and Material Technologies (DMT) at Taubman College of Architecture and Urban Planning at the University of Michigan. She hopes that by learning material knowledge and machine techniques she will be able to generate innovative ideas and apply them to design. Her primary research interest in the DMT program is casting complex concrete geometry by combining robotic arm technology and fabric molds in lieu of using a traditional formwork. Ester has a Bachelor of Science in Architecture from Feng-Chia University in Taiwan.