

# Palác Florenc

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A dialogue between technology and the  
public realm in the smart urban palace

In an economic setting where the GDP of a metropolis is comparable with or even surpasses that of a country<sup>1</sup>, we need to start understanding cities more as autonomous interconnected entities within a global network, rather than inherent components within the country's boundaries.<sup>2</sup> The Network City is the direct result of the process of deterritorialization, where the forces of neoliberalism divided the city into three independent, neutral components: urban settlements, infrastructure and landscape.<sup>3</sup> The separate evolution of these three elements has concluded with the emergence of "Global Cities, Great Infrastructural and Distribution Networks and the Urban Sprawl",<sup>4</sup> which then lead to social segregation and urban disconnection. The chair of Public Building envisions hybridization as a strategy to tackle these issues and advocates for new urban configurations to link mobility, work, leisure, dwelling and production in the city.<sup>5</sup>

In accordance to the chair's line of inquiry and the studio graduation brief, entitled *Alpha Global City Prague*, the project investigates the possibility of integrating new technological processes into the public realm in the city of Prague. This will act as a statement against the legacy of the new industrial capitalism, which has disconnected production, distribution and consumption spaces in the city.<sup>6</sup> The focus is the design of a grocery re-distribution center as part of a larger network of sub-centers, each responsible for their own city district, which makes use of the shared-economy system and the Internet of Things (IoC)<sup>7</sup>. This emerged from the growing pressure to find feasible, environmentally friendly solutions for last mile deliveries and to keep up with the current market trends of same-day or 24 hours delivery. This process will deploy a paradigm shift in the architecture of storage and delivery on the one hand and on the other it will help Prague transition to the status of a Smart City.

The graduation proposal is a hybrid building which shelters a rail connection between the airport and the historic center, a re-distribution facility, a market hall and working and dwelling units. The program and typology have both been developed as a result of the research process. The studio's core research methodology encompasses the typological study of architectural structures specific to the city in question, which in this case represents the urban palace, and a field analysis. The findings have complemented each other throughout the entire design process, resulting in a contemporary urban palace, built on the brown field of the Masaryk station. The final design incorporates various elements from the 19<sup>th</sup> century Prague arcades but puts an emphasis on the practice of staging and being staged. The design implements this on different levels – staging the co-working spaces or the storage facility in the public space. Additionally, due to the site's history and location within the city, namely on the former fortification wall separating the old town from the first industrial district, defining the relationship between the serving and the served spaces becomes one of the key design strategies.

The research and design proposal constitute a relevant intervention on a wider scale for three reasons. Firstly, due to its flexible typology, the project can be implemented in multiple European cities and can accommodate other similar programs, such as a data center or an indoor farming facility. Secondly, by

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<sup>1</sup> de Graaf, "The Value of Architecture."

<sup>2</sup> Cavallo and Technische Hogeschool Delft, *NEW URBAN CONFIGURATIONS*. P 12

<sup>3</sup> Cavallo and Technische Hogeschool Delft. P 853

<sup>4</sup> Cavallo and Technische Hogeschool Delft. P 854

<sup>5</sup> Cavallo and Technische Hogeschool Delft. P 13

<sup>6</sup> Cavallo and Technische Hogeschool Delft. p 854

<sup>7</sup> Rasia and Pardalos, *Smart City Networks*.

using the IoC and the shared-economy tools, the project can reduce the delivery costs and the ecological footprint of the distribution process in e-commerce. The delivery system can use a digital platform where, during rush hours, members of that platform can contribute to the delivery network through incentives such as small commissions or free transport for future purchases. Also, by combining the market hall with a grocery storage facility, the project can revolutionize the way people shop. Not only will this new market immensely reduce its physical footprint by only exhibiting fresh products and storing the canned goods and others in the tower-shaped warehouse. But it will be the first centralized shopping center, where one can browse and select articles from various groceries brands and use a single check-out counter. This can blur the mental connection between branding and a social class and be an active step forward towards more socially inclusive cities.<sup>8</sup> Finally, the integration of a groceries warehouse and a housing tower in one single building contributes to the environmental footprint by concentrating and sharing each other's energy resources and waste.

The vulnerability of this design proposal from an ethical perspective is not different from other technology-based projects in the recent years, but it is something that needs to be addressed: privacy. Although the EU General Data Protection Regulation was ratified in May 2018<sup>9</sup>, companies will continue to seek loopholes in legislation to profit from sharing of personal data.

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## Bibliography

- "2018 Reform of EU Data Protection Rules." Text. European Commission - European Commission. Accessed May 15, 2019. [https://ec.europa.eu/commission/priorities/justice-and-fundamental-rights/data-protection/2018-reform-eu-data-protection-rules\\_en](https://ec.europa.eu/commission/priorities/justice-and-fundamental-rights/data-protection/2018-reform-eu-data-protection-rules_en).
- Avermaete, Tom, ed. *Border Conditions*. TU Delft Architecture Series. Amsterdam : Delft: Architectura & Natura Press ; TU Delft, 2010.
- Cavallo, Roberto, and Technische Hogeschool Delft, eds. *NEW URBAN CONFIGURATIONS*. Amsterdam, The Netherlands: IOS Press, 2014.
- Graaf, Reinier de. "The Value of Architecture." presented at the Indesem, TU Delft, May 14, 2018.
- Rassia, Stamatina Th, and Panos M. Pardalos, eds. *Smart City Networks: Through the Internet of Things*. Springer Optimization and Its Applications, Volume 125. Cham: Springer, 2017.

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<sup>8</sup> Avermaete, *Border Conditions*. P 333

<sup>9</sup> "2018 Reform of EU Data Protection Rules."