New Work Communities: From the Fordist Office to the Worksphere 4.0

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ABSTRACT

The organisational models orchestrated by Management Science for tertiary work and the spatial typologies in which it was carried out have been definitively challenged by the recent pandemic. From the pyramidal hierarchy that prevailed during the 20th century, we have moved to matrix-type and network-based management. Since the end of the 19th century, offices have seen a proliferation of environments such as the cellular office, the open space, the *Bürolandschaft*, the combi-office and the networking office. Each of these has proved revolutionary in its way, but none has become overriding the others. The most recent transformations of the workplace, accelerated by the Covid-19 pandemic, date back to the financial crisis of 2008, as well as to the use of information technology, which opened up new scenarios permeated by spatial and digital delocalisation. It is now necessary to investigate the new diffuse geography of workspaces: from traditional offices reconfigured to meet different spatial and organisational needs to co-working offices, from bars, hotel rooms, co-living spaces, public waiting rooms to the private home. In this extended vision, terms such as *territory* and *community* acquire a new value, becoming places of affirmation of the individual's existence, of everyday life and of economic and public interests. Another "worksphere" seems no longer defined only by the physical office but expressed by the set of social, psychological and economic conditions, the technological tools, and the places in which people work. This geography of spaces grows within a vision of a city of proximity, where workplaces seek to maximise relationships between colleagues and enhance the workplace within. Architects and office designers have the task of creating inclusive frames for the post-pandemic workplace.

Keywords
Molecular Office, Social & Relational Infrastructure, Virtual Communities, Atomised Office

1   INTRODUCTION[1]

The socio-economic impact of the Covid-19 contagion has altered the conformation and performative arrangements of metropolitan cities and their socio-economic cohorts. In the sphere of immaterial work – with which the tertiary sector and service companies are identified – new hygienic norms, different managerial organizations, other spatial arrangements of the places of production must respond to the changed existential conditions. The pandemic has definitively challenged the organizational models orchestrated by Management Science for tertiary work and, consequently, the spatial typologies in which it was carried out during the last few decades. As far as the former is concerned, there has been a shift from the pyramidal hierarchy that prevailed during the Fordist 20th

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[1] This essay is the result of a collaboration between the authors, but for academic competitions the Introduction and the paragraph "Community as Molecular Office" should be ascribed to Imma Forino, while the paragraph "New Virtual Community: The Atomised Office" and the Conclusion should be ascribed to Michela Bassanelli.

century, to the matrix-type management, and then to the network-based management of the post-Fordist era (Fontana 1981; Allen & Henn 2007). As far as workplaces are concerned, from the end of the 19th century to the present day, there have been various arrangements such as the cellular office, the open space, the *Bürolandschaft*, the combi-office and the networking office (Forino 2011). None of these typologies has become dominant over the others, but rather they have alternated with each other, even coexisting in the same office, thus showing how work's interiors can be fluid and adaptable to the needs of companies, managers and employees.

The most recent transformations of offices, then accelerated by the effects of the pandemic, can be traced back to the global financial crisis of 2008, as well as to the almost total use of information technology. The consequent corporate delaying has corresponded to the rotation or elimination of desks, not only understood as the "place of work" but also as physical locations where work is carried out (Forino 2013, 15). Preconceived by Gaetano Pesce in a well-known office project (Chiat/Day TWBA, New York 1994-95), the *deskless* office has been adopted in many service companies, also thanks to the increased mobility of workers (Forino 2016). On the other hand, the improved quality and speed of information technologies, and in particular the adoption of wireless connectivity, have enabled valuable forms of telework, but have also ensured that ubiquitous workers and freelancers can operate in places other than offices, such as bars, libraries, hotel rooms, airport and railway station waiting rooms, or in the co-working offices, the shared offices for limited time use that now dot every city. Finally, if the relationship between the latter and the workplace had in the past clear physical boundaries and was regulated by a synchronic temporality according to the usual 9 a.m.-5 p.m. timetable, that relationship has gradually dissolved not only in the reciprocal spatial and formal influences between workplaces and the city but also according to an agitated elasticity of time and place, which in the current era of flexible production and accumulation has ended up transforming itself into a prevailing *chronophagy*, which compresses the hours as well as the spaces (Paolucci 2003).

This paper presents an overview of the development from the traditional workplace to a community space that integrates different functions such as work, care, socialisation etc. The research pursued not through a quantitative and data analysis approach but through literature review and "research by design" with case studies in order to define a view of working spaces in the future.

2   COMMUNITY AS MOLECULAR OFFICE

It is not easy to imagine the near future of the workplace at a time when the effects of the virus and its variants are still so heavily affecting human lives, nor are the prospects clear for other global health emergencies that may await humanity in the third millennium. In the immediate future, service companies have recalibrated their offices in terms of social responsibility for people's health and wellbeing, spacing desks more widely, equipping environments with physical distance signs and personal sanitation devices, and directing the flow of employees unidirectionally towards lobbies, corridors and lifts. On the other hand, in the post-pandemic era, it is very likely that remote first, the priority choice to carry out work remotely, will shape the future of many companies (especially private ones) and their employees, provided that the former offer the latter a truly efficient technology, i.e. one that allows effective connections to the web wherever they are. In this perspective, the office could remain a physical place for meeting and sharing, reduced in size and management costs, but still necessary for the corporate culture that binds employees to a company. At the same time, new customs will have to be designed concerning a different work culture, to be followed by other types of space which, halfway between the home and the city, can offer additional places to work.

Among the customs to be reconsidered there is above all the relationship between people's professional tasks and their care and/or domestic activities, since in Italy the Welfare State does not support the difficult existential balance – in particular of women or, more generally, of those who take on the greatest care responsibilities in the family – of those who work and personally take care

of children, sick or elderly relatives, as well as the management of the home. If the problem is obvious for those who work in a physical office, the issue remains the same for remote workers who, through adherence to smart working, are at home. Only then will it be possible to imagine a different type of office, somewhere between the "central" office of the company and the home, or decentralizing work towards "the places of life" (Bonomi 2021, 41).

Avoiding the burden on workers' home environments, the presence of a "molecular office," located on the ground floor of buildings in the city, could be an important factor.

The presence of a molecular office, located on the ground floor of residential buildings in the neighborhood in which one lives, would reduce daily commuting, foster social relations of proximity (also by occupying the many commercial spaces emptied by the economic crisis) and offer the essential benefits of working such as fast web connection, technical equipment, ergonomic workstations paid for by companies or, for the self-employed, with the contribution of a minimal expense. At the same time, such a place should offer itself as a kind of "social infrastructure" (Saraceno 2021, 31), which partially supports people engaged not only in their profession but also in care and domestic activities, for example by hosting a crèche, a kitchen and a place to meet and share lunch, a laundry, an after-school room with the possibility of a teacher on hand and, also, counting on home healthcare services that can be booked on the spot. It would also be a "relational infrastructure," because it would not refer to the employees of a single company, but would also be open (like the previous Co-working Offices) to independents, who would take advantage of the practice facilities as well as the opportunities for relations with other professionals. In other words, it would be a question of collectivizing or semi-collectivizing certain tasks that generally fall on the shoulders of a single-family member, especially if divorced or single, with the essential economic contribution of the state for public employees or the self-employed or companies for private ones. The molecular office would therefore perform a support function for workers, in addition to the practical one of hosting their workstation, also provided on a rotating basis.

For the spatial project of such a place, the typologies of the "democratic office" offered by anthropological structuralism applied to architecture could be reviewed (Forino 2019, 130), or more private corners for the necessary concentration could alternate with small meeting rooms, taking up the spatial typology of the combi-office (Sjöman 1977, 22), a hybrid solution of spatial organization that mediates between the open plan (Kaufmann-Buhler 2021) and the cubicles (Saval 2014) (the latter no longer appropriate during health emergencies). For the arrangement of accessory services, which are indispensable for reconciling private and professional life, one could instead look at the many examples of collectivization of family activities experimented between the end of the 19th and the beginning of the 20th century, which – updated to meet current needs and deprived of the demagogic extremism that had characterized some of them – still offer interesting food for thought on the conformation of spaces.

Decomposing the office as a *unicum* to reconfigure it through spatial, relational and support "fragments," or in multiple workplaces arranged punctually in the basement of buildings, means outlining a new urban landscape, as porous as it is adaptable to the continuous metamorphosis of work and workers' lives, accelerated by the pandemic process. On the other hand, it can promote greater social integration, reactivate neighborhood economies, and include the most fragile people or those with limited financial resources.

3   NEW VIRTUAL COMMUNITY: THE ATOMISED OFFICE

The shift from the traditional *workplace* to the post-pandemic *worksphere* is part of a de-structured idea of the office that represents a new ecosystem composed by physical and virtual spaces, but also of experiential relationships, linked by an increasingly high-performance technological infrastructure (Pelloni, 2020). Due to the Covid-19 pandemic and the frequent, but necessary, requests to reduce social interactions, *smart working* seems to increase more and more in the composite working

landscape, also through legislation that is trying to define its rules and behaviors[2]. A research, carried out by Willis Towers Watson[3] on a sample of Italian companies, estimates that in two years only 42% of employees will work in the traditional office and shows that the hybrid model will be the most commonly used. On the one hand, the recent experiment in forced *tele-working*, erroneously defined as *smart working*, has proved its effectiveness in terms of reducing contagion thanks to its mass application, which has made it increasingly visible and feasible for businesses. On the other hand, during the first lockdown, revealed a difficulty of management due to the coexistence of work and family activities, and of unclear time limits, which often decreed its defeat compared to "traditional" work. Informal *smart working* practices existed before the pandemic; indeed, working from home was the norm for many, especially women (Burchi 2014). These have set up other spaces within the home to deal with a different way of working that combine professionalism, skills, and family needs, but also an economic necessity. The private living space will remain for many people a place to carry out their work alongside other household activities, for which they will need to adopt a reformulation of time and space. Within the complex work system that has been configured for some years beyond the factory (Bonomi 2021) or the office, the home plays a substantial role as a place of production rooted in its territory, in line with the "hyper-industry of everyday life" (Bedani, Ioannilli 2020) that places the subject at the centre of the capital. The term "industry" refers not so much to a specific sector of the economy as to a way of organising work activity. In this sense, *hyper-industry* becomes an isomorphic extension of certain modes in every sphere of daily life, thanks to the increasing digitalisation of society[4]. To understand this phenomenon, it is necessary to consider the metamorphosis of capitalism towards what is now called the "neo-industrial cycle" – which includes the centrality of "reproduction" (Alquati 2021) – and the penetration of new technologies into the domestic and working landscape, starting in the 1970s. The technological infrastructure is the tool that extended the productive field to social and personal life and that caused the transition of the house into a medial environment, starting from a dematerialisation of the exterior shell (Colomina 1996) to the complete intrusion of *technoramas*[5] (Appadurai 1986) into the interior spaces.

In the Eighties, some Italian designers and architects anticipated the effects by designing prototypes of hyper-connected homes of the future. Andrea Branzi created the "Casa telecomandata" (remote-controlled house) where a man, sitting on a triclinium in the centre of the living room, controls objects and connections thanks to the network without moving (Triennale di Milano, 1986). In the same Exhibition, Denis Santachiara designed the "Casa terminale" (terminal house) inhabited by Ines, a talking domestic robot, an antecedent of *Alexa* or *Google Home*, symbolising the transition from the purely technological issue to the emotional and psychological one that these machines can implement in everyday life. Tomás Maldonado instead highlights critical issues and possible social repercussions, reporting that in the year 1964, the governor of California, Jerry Brown, proposed as a possible solution to planetary sustainability the shifting of work, especially office work, to the home: "it would be nothing less than to pulverise office work into as many workplaces as there are employees' homes" (Maldonado 1970, 91-92). On the other hand, the Argentine designer questions the social role and consequent aberration of this type of work dynamics, which would lead to oppressive isolation and even higher forms of control (Federici 1975).

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[2] The first legislation on smart working was introduced by Law No. 81/2017, art. 18 and sg. After an in-depth discussion with the social partners promoted by the Italian Minister of Labour and Social Policies, the "National Protocol on smart working" in the private sector was signed on 7 December 2021, supplementing the previous law and preparing guidelines for collective agreements on the subject.

[3] The Benefit Trends Survey 2021-2022 was carried out on a sample of Italian companies representing about 155,000 employees.

[4] In Alquati's "model" (2021), the "hyper-proletarian" condition is formed by a new craftsmanship, arising from being networked, and the increase in a range of previously unworked activities that can be traced back to every aspect of human life.

[5] *Technoramas* are one of the five scenarios (Ethnorama, Mediorama, Financiorama, Ideorama) that philosopher Appadurai (1986) identifies in his Theory of Cultural and Global Flows, linked to the movement of technologies.

The lockdown experienced recently, however, has been very different from that of previous pandemics, such as the Spanish flu (1918) and the plague (1630) precisely because of the role of technologies in our lives (Silverstone, Hirsch, Morley, 1992), which contributed to the creation of social virtual communities as support for fragile populations and the preservation of otherwise unworkable community dynamics. In the workplace, video calls on several platforms such as Teams, Zoom or Meet have facilitated contacts, even if virtual, with colleagues, family and friends. In a conception of life *onlife*, where being connected is now an integral part of our everyday life, and which takes place in the infosphere, where "what is real is informational and what is informational is real" (Floridi 2014, 41), it is necessary to identify new strategies for a different structuring of everyday life and quality time that reduce the sense of isolation and estrangement.

The binary concepts (inside/outside, public/private, inside/outside, day/night), which defined the way of life before the development of pervasive technologies and infrastructures, have lost their primary meaning. Thanks to the domestic voyeurism there has been a transformation of the private sphere into public space, through the placement of workstations in areas of the home normally used for other activities. The home has become a device, just like the sets of the theatrical machine, where small alterations, mobile, hybrid and transformable spaces permit the use of rooms to be optimised according to needs. A solution for those who have to combine production activities in their homes could be to create "rooms within rooms", small living environments where they can isolate themselves to work (Forino 2001), such as Ronan and Erwan Bouroullec's "Joyn" system (Vitra 2002) or the recent "Grid" system produced by the design duo for Established & Sons company (2019-2020), or to organise new spaces using modular furniture such as Jack Brandsma's "SpareSpace" system (2008). On the other hand, if used with the right detachment, technologies can contribute to the formation of communities, creating virtual rooms that bring co-workers together, alleviating the weight of loneliness (Georgiou 2020). As was the case during the first lockdown, spontaneous phenomena of digital solidarity have multiplied; in this sense, new forms of sociability allow domestic workers to feel part of the activities of their neighborhood, even if in virtual form, and could help to nurture a neighborhood "publicness".

Figure 1. Grid System, by Ronan and Erwan Bouroullec for Established & Sons company, 2019-2020
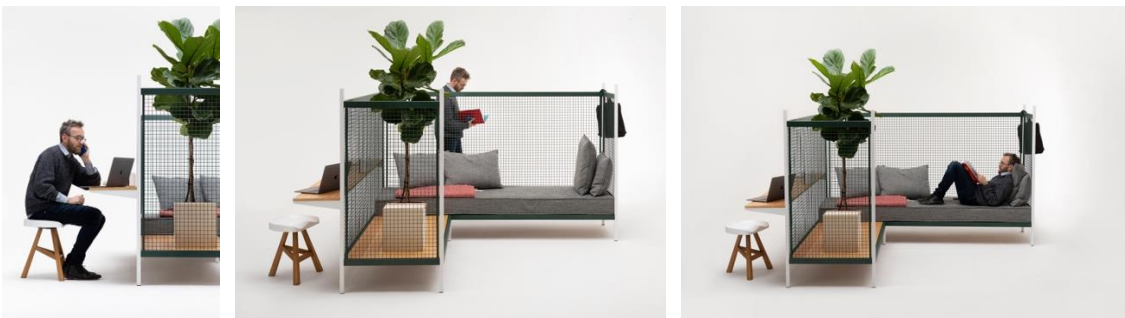
5   CONCLUSION: SPATIAL   AND   SOCIAL   ALTERATIONS   FOR   NEW WORKSPACES

The future of work will be increasingly hybrid: alongside collaborative activities at the *Hub Quarters*, there will be virtual activities at home, in molecular offices, co-working spaces or other small local offices, created specifically to decentralise work. If technology is able to enhance the feeling of belonging to a community, even if virtually, intellectual and bodily exchange is still an essential element of the working world, as many people have pointed out in recent months. The traditional *workplace* will become a space where colleagues can meet and co-design, through spatial solutions that will see an increase in semi-enclosed areas dedicated to collective activities, allowing more

groups to collaborate, and meeting rooms of different sizes. In addition, headquarters will integrate spaces to enhance employee well-being, including play, video and fitness rooms, outdoor seating areas and bars. Recently, several office furniture companies are promoting environments that reflect the *club* typology - identified many years ago by office planner Francis Duffy (1997) - such as Herman Miller's *Clubhouse* system (2021) and Vitra's *Club Office* system (2021).

Figure 2. Clubhouse, by Herman Miller, 2021

Figure 3. Club Office, by Vitra, 2021
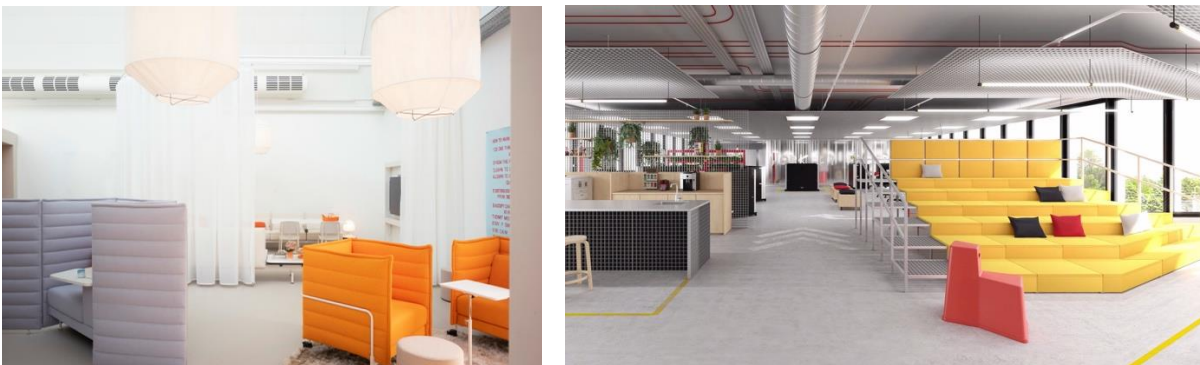
What is noticeable in the territorial effects of an increasingly hybrid system is the formation of a constellation of different urban polarities, no longer defined by the centre-periphery movement, but by networked systems moving to different nodes as theorised in Archizoom's *No Stop City* (1970).
The disaggregation of the factory system into local or domestic locations will allow a *re-territorialisation* in the neighbourhood space of activities concerning work, home, care and primary consumption. The development of a sense of community as a social construction will become fundamental to overcome the risk of polycentrism of creating closed, introverted systems incapable of making links (Bonomi 2021). The molecular office located on the ground floors of residential buildings can complement the sense of isolation generated by *smart working*, i.e. where the transition from a "virtual working inside" to a "real collective outside" can take place, and where neighborly knowledge and new daily rituals can be developed. If the office of the future will leverage the advances of technology with the creation of applications such as *workrooms* (where avatars will interact as in the real office recreating common gestures through the use of visors), the community network can, instead, act as a tool to save the body, considered as a *cyborg* (Braidotti1995), and the mind from possible "schizoid drifts" (Chicchi 2012).
A hybrid way of working has many points in its favor: it reduces travel costs and pollution, improves lifestyles – time and energy savings for commuters –, offers new opportunities for social cohesion, and limits the costs of running a workplace. In the near future it is very likely that we will see a destructuring of many environments – not only workplaces but also hospitals and care centres –

towards a diffusion and pulverisation of activities in homes and local offices, which could contribute to a newfound sense of community and a different configuration of welfare systems. It will be necessary to identify spatial and relational solutions that allow a *work-life balance*, which prevents the risk of *burnout*. To conclude, phenomena of deconstruction and infrastructuralisation – already theorised by Radical culture during the 1970s – could contribute a different design vision in terms of inclusion, not only in spatial terms but also concerning gender issues.

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