Working (on) Spaces

Repairing rural infrastructures through collaborative working spaces?

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Introduction

How does the digitally grounded, collaborative working practice of rural coworking spaces[1] materialize in their local and wider environments? To what extent can rural coworking be described as a care and repair practice in this context? Which specific practices do coworkers use to counter the declining infrastructures that are commonly discussed in peripheral and suburban areas?

In this contribution, I will examine rural coworking spaces (CWS) as sociomaterial entanglements of individual working practices and care/repair practices for rural spaces that are oriented towards common goods. As the slash between "care" and "repair" suggests, these practices and concepts are not clearly separable; rather, they intersect in that they are both aimed at the functioning of the relationships and spaces described here. A more precise differentiation is provided in the section on infrastructures of care and repair in rural coworking.

The analytical perspective on infrastructure work is intended to foreground the visibility and invisibility of the transformation processes addressed here, in both the field of work and in the development of rural spaces. Additionally, looking at rural CWS through the lens of infrastructuring (as a verb) enables an analytical sensitivity to be developed concerning the practices and agency that are distributed in alternative, decentralizing spatial design processes. For this purpose, I draw upon two studies about coworking in rural areas (Bertelsmann Stiftung 2020; Marmo and

1 I use the term coworking spaces in a broad definition in this article and that includes all formats and concepts in which spaces and infrastructures are (also) used jointly for gainful employment in order to take account of the heterogeneity of rural coworking spaces in all of their spatial forms and different practices (Marmo and Avdikos 2024; Bertelsmann Stiftung 2020).

Avdikos 2024) and on seven interviews that were conducted with CWS hosts as part of a project seminar at the HCU on practices and spaces of digital work.[2]

Rural areas are often discussed as problematic and deficient, with a dysfunctional infrastructure in academic and public discourse (e.g., in terms of public transportation or medical supplies) and are often considered as backward and conservative (Steinführer 2015; Naumann and Reichert-Schick 2013). In fact, many rural regions in Germany struggle with out-migration, an aging population, and insufficient funds to operate and maintain schools, kindergartens, and swimming pools (Steinführer 2020; Fischer-Tahir and Naumann 2013). Nevertheless, a wide range of civil society, voluntary initiatives, and associations continue to both shape and organize social life in rural areas. However, the actors often reach their capacity's limits when trying to balance gainful employment, care work, and other activities, due to the withdrawal of both state funding and state involvement (Rüger, Greinke, and Skora 2022).

However, non-urban areas came into focus as positively connoted spaces of longing and counter-designs to life in urban areas during the COVID-19 pandemic. Life in the countryside seemed desirable during this exceptional crisis situation, when the positive aspects of urban life, such as a diverse cultural, economic, and social infrastructure, were unavailable or even dangerous. In fact, younger, well-educated middle-class couples, in particular, who had already planned to move out of the city anyway, stated that the pandemic had supported or drove their decision (Dolls and Mehles 2021, 31–32). Nevertheless, immigration mainly favors suburban and small-town locations with good transportation connections to the larger cities, so people can pursue well-paid jobs there and can easily take advantage of the cultural offerings.

The opportunity for gainful employment, which is both financially rewarding and can be found within a reasonable commuting distance, is a significant factor in the decision-making process regarding place of residence. The aforementioned well-educated young couples and families require reliable digital infrastructure in order to maintain their lifestyle and employment when either relocating to or remaining in rural areas. This demand has resulted in mounting pressure on local municipalities to either upgrade or to maintain their infrastructure. The capacity to secure gainful employment in close proximity to one's place of residence, with adequate transportation options, exerts a substantial influence on residential decisions. Childcare is also crucial, particularly for families and for prospective parents. Dolls

2 The interviews were conducted by students, Arina Panchulova and Isabella Gmehling, as part of the project seminar and I would like to thank them for their work and for making the interviews available for further research. I would also like to thank the CoworkLand cooperative and Hans-Peter Sander in particular, who provided support in making contact with suitable coworking operators.

and Mehles (2021, 31) find that the influx of young professionals raises expectations for local planning, particularly in areas of education and mobility. Digital connectivity is essential for both social and professional communication; remote work has emerged as a viable alternative to commuting, influencing relocation decisions – though it is feasible only where high-speed internet is already available. As of July 2024, gigabit (74%) or broadband (30%) coverage remains incomplete throughout Germany (Bundesregierung Deutschland 2024). In the section that follows, I will introduce the group of actors, outlined here in the context of rural CWS, and will conduct an in-depth examination of this phenomenon's characteristics.

Rural coworking

In what follows, I will explore rural coworking as a heterogeneous, spatialized, and digitally based practice. In considering this framework, I will firstly delve more deeply into concepts of rurality. This reveals that rural areas are characterized by heterogeneity in terms of conditions, appearance, and functionality. Settlements close to urban centers are subject to different conditions than settlements in peripheral, sparsely populated areas (Küpper 2016). Therefore, it is necessary to establish a clear distinction between the terms "rural" and "peripheral."

This concerns quantitative distinctions less, such as population size, and more concerns suburban and peripheral areas, whose living conditions differ from cities due to size, location, and specific infrastructure (ibid.). Rurality refers to measurable factors that include density, settlement structures, or land use and is linked to specific images and narratives. Periphery, always defined in relation to a center, is understood here as a peripheralization process formed by social relations and developments (Beetz 2008, 574). Consequently, there are actors in this process who shape it more or less actively. Coworking actors can, thus, be identified as agents who co-shape this center-periphery relationship because they address peripheralization as a development of inequality and attempt to counteract it. This happens, for example, through the decentralization of work locations through digital communication and data transmission in the home office, as well as in CWS. In this regard, the expansion of the digital infrastructure functions as a catalyst for progress, particularly in specific domains. This assertion is exemplified by the expansion of superior transportation networks (Melgaço 2022). It can be argued that enhancing the region's digital infrastructure may contribute to a region's de-peripheralization. I prefer the term periphery in the definition above, rather than the term rural; however, I will use it to describe these sites in this text because the term "rural coworking" has become established in practice and academic discourse.

Rural coworking as part of a rurban lifestyle

The EU-funded international junior research group CORAL ITN, which studies collaborative workspaces in rural areas, states that these workspaces are roughly equally spread throughout Europe's urban and rural locations in one of its surveys (Marmo and Avdikos 2024). In their study on "Digitization as a Driver for Rural Development", Hölzel and de Vries speak of roughly 20% of German CWS that are now located in rural or suburban areas (Hölzel and de Vries 2023).

While there are many similarities in coworkers' working methods and motivations in urban and peripheral areas, a study by the Bertelsmann Foundation (2020) describes rural CWS as more heterogeneous in terms of user structure, among other things. For example, coworking is operated in parallel with work in an employment relationship for additional project work. Both studies highlight the importance of social exchange, networking opportunities, and other events, such as training courses and cultural events, particularly for users of rural CWS. However, in both forms of CWS, the majority of coworkers are self-employed, creative, and knowledge workers, all of whom can work remotely due to the digitalization of their work products and tools; however, they are also dependent upon a stable internet connection to use communication and collaboration tools. The basic technical and cultural prerequisites for the operation of coworking on a permanent basis are summarized within the term coworkability. These prerequisites include technical skills and tools for organizing work digitally, autonomy over spatial and temporal work organization, and both a suitable team and trust culture within professional networks (ibid.).

This categorization also demonstrates that coworking in peripheral areas is subject to specific conditions that distinguish it from coworking in urban areas (Knapp and Sawy 2021). However, there is a large degree of overlap with the practices, lifestyles, and values of urban coworkers. This is not surprising, given the origin of this phenomenon in urban areas. The fact that coworking is a mostly value-based and value-oriented practice is shown, not least, by the Coworking Manifesto, which is frequently referred to in texts and conversations.[3]

Furthermore, as demonstrated previously, the majority of rural coworkers are individuals who have formerly spent at least part of their working and educational life in larger cities. In this regard, these practices must always be seen as the result of different influences. Consequently, a classification that is based exclusively on spatial location appears to be inadequate. The Bertelsmann study also concludes that rural coworkers are not compelled to choose between living and working styles, but rather observe a trend towards hybrid rural living and a rurban lifestyle (Bertelsmann Stiftung 2020).

3 https://www.coworking-germany.org/coworking-manifest/ (Accessed July 30, 2025).

At the same time, the urban influence should not be disregarded in the discourse on peripheral areas and concerning the concrete implementation of CWS on site. The impression that local problems can be 'repaired' one-to-one with concepts that have been tried-and-tested in urban areas has emerged. This has led to discussions about gentrification being transferable to peripheral areas (Lange and Üblacker 2023; Mießner and Naumann 2021). In addressing the issue of rural gentrification, I am less concerned with the common questions of displacement, price increases, and revaluation processes, but rather with the acceptance of lifestyles and working practices by the local population. This entails the examination of social perceptions, the identification of the beneficiaries of these changes, and the analysis of the processes that facilitate collaborative actions and, consequently, the development of a sense of community. A more thorough examination of this phenomenon is warranted, but will have to be conducted elsewhere.

Rural coworking always (at least implicitly) addresses and discusses the spatiality of (gainful) work, given that it is a response to spatial problems. These problems are related to both urban and rural spatial problems and largely address the scarcity of space, resources, and infrastructures. On the one hand, there is a scarcity of affordable living and office space; on the other hand, there is a scarcity of sufficient public mobility and networking in everyday working life. These processes and discussions are embedded in post-growth narratives and logics that involve planning and implementing new solutions and answers according to criteria such as sustainability and ethical principles (Thornton et al. 2023).

Heterogenous formats and combinations of coworking

The majority of the studies mentioned previously indicate that the success of rural CWS is contingent upon the extent to which they address local needs. Furthermore, the motivations of CWS founders are diverse and this situation has given rise to the development of various CWS formats that are described in greater detail in the Bertelsmann Foundation study (2020). At this point, I would like to highlight the CWS form of the "New Village Center" (Neue Dorfmitte): This concept describes spaces that integrate the concept of coworking with other services, thereby offering novel opportunities for social interaction and for the initiation of cultural and spatial development. The study also emphasizes that the combination of coworking with other functions, such as post offices or corner stores, can increase the economic resilience of these locations.

The aforementioned interviews (see fn 2), which form the basis of this contribution, address the specific combination of coworking and childcare. The interviewees explain their goals, challenges, and individual solutions for combining childcare with CWS. I will not discuss the interviews in detail, due to this chapter's lim-

ited scope, but will instead present preliminary interpretations that are based on the interviews. The combination of coworking and childcare was also investigated and monitored as part of the EU-funded CoworCare project in the Alpine region.[4] The initiative's objective was to enable care providers to enhance their participation in the labor market through a combination of workplaces close to home and adequate childcare services. In addition, an online platform was developed that makes CWS in the Alpine region, offering care services for children or older people, more visible.

Rural CWS as subject of rural development policies

Merkel and Avdikos argue that it is not just economic values, but also social values that should be acknowledged and supported in policy principles for peripheral areas in their paper on supporting collaborative workspaces as tools for regional development. Within this scope, they describe collaborative working spaces as shared social infrastructures that can play "a distinct social role in cities and peripheral areas in offering wider social services and in maintaining but also creating the social fabric within rural areas" (Merkel and Avdikos 2020, 354).

This infrastructure work is carried out by motivated individuals in order to repair, adapt, or to create lacking and non-functioning infrastructures in the areas of work, mobility, and community in peripheral areas (Hölzel and de Vries 2023). Despite the actors' usage of state aid in the form of subsidies, they do not transfer the responsibility and implementation of their societal and infrastructural concepts to the political level; rather, they implement these concepts autonomously. Consequently, they can be situated within the broader context of (social) repair and DIY movements (Schabacher 2022, 205ff).

While many CWS launched in peripheral areas are largely based on the (financial) efforts of individuals, there are also municipalities in which coworking is or was specifically targeted and promoted as a development tool. For example, in the federal state of Schleswig-Holstein, CWS have been and are being actively promoted as a tool to retain the younger, well-educated population in rural and suburban areas or to become more attractive for new residents. Additionally, CWS offer alternatives to commuting to larger cities for gainful employment. This is also interesting in contexts in which local culinary offerings and retail establishments have become financially unfeasible. In this context, actors in the fields of digitalization and urban development regard the promotion of coworking by municipalities and re-

4 https://www.coworkation-alps.eu/aktuelles-events/projekte/coworcare.html (Accessed July 30, 2025).

gions as a form of infrastructure, rather than project support.[5] In this regard, Merkel and Avdikos (2020) emphasize the significance of CWS as community goods that should be perceived even more strongly by regional political bodies. Furthermore, CWS should be considered with an expanded concept of innovation and might

> "become shared social infrastructures and community platforms, playing a distinct social role in cities and peripheral areas in offering wider social services and in maintaining but also creating the social fabric within peripheral areas. Their role as community hubs can be the base for a more integrated approach to rural development potentials that combines social, cultural and economic development" (ibid., 354).

As examined previously, local authorities should view CWS as part of the basic infrastructure. This would also imply financial support, especially since coworking is not usually economically viable in peripheral areas by itself.

The commitment to the development of CWS in peripheral areas, including the provision of financial and non-material support from political actors, can be summarized, borrowing the perspective of Alexa Färber, as a promise of progress and social cohesion (Färber 2023). In this context, she identifies infrastructure projects in particular as the subject of political promises that are often not kept. While the broken promises of large urban infrastructure projects are typically viewed negatively, the vagueness of promises in rural CWS is ambivalent. There is an openness to experimentation, though, which is politically supported. However, the failure to deliver on the promise of innovation and interaction in rural CWS can lead to increased skepticism toward politics and progress. The concept of infrastructural promises clarifies temporalities, by describing processes of care and repair in the establishment and operation of CWS, for example. I will discuss this specific issue further in the following section.

Infrastructures of care and repair in rural coworking

The present contribution utilizes three concepts – namely, infrastructure work, care and repair – that all play crucial roles in the context of cultural studies research into practices of social maintenance and reproduction. However, these concepts function on different levels. For this reason, I would like to briefly differentiate the terms at this point and describe the extent to which they are fruitful for the research discussed in this chapter. A comprehensive understanding of work is imperative for

5 https://cityandbits.de/2022/08/25/handreichung-fuer-kommunen-zum-aufbau-von-coworking-spaces-im-laendlichen-raum/ (Accessed July 30, 2025).

this foundation and extend beyond the conventional feminist conception of work (Koch, 2013). This expanded concept encompasses all of those activities deemed essential for the sustained viability of both communities and society, including gainful employment, care, and nursing work. While feminist scholars have historically focused on issues of remuneration and (in)visibility in the context of work since the 1970s, the concept of infrastructure work offers a more nuanced lens for understanding complex, sociomaterial systems that involve multiple actors.

Infrastructure work

Infrastructures are defined less as static technical entities in this work and more as dynamic and relational socio-technical structures that are subject to continuous coordination and networking, "which seeks to establish and maintain the manifold links between social organization, moral order and technical integration" (Niewöhner 2014, 3; author's translation). Therefore, the focus of analysis shifts from infrastructure as an object to infrastructurization as a process (ibid.). Gabriele Schabacher describes this fluidity and the paradox that stability can only be achieved through constant improvement with the term "infra-agency." She includes processes unrelated to human agency in her conception of infrastructure work (Schabacher 2022,19ff). Thus, in this context, the focus is not only on work on infrastructures, but also on the work of infrastructures themselves. This occurs, for example, by enabling and shaping communication and change through their nature as media (ibid.).

Infrastructure work follows different temporalities in the context of rural coworking: First, it involves short-term experimentation, adaptation, and tinkering (ibid.) to try out working practices and certain technical and spatial innovations; these can be adapted directly where necessary. For example, the early phases of CWS should be mentioned here, when the needs and possibilities on site are first explored in so-called "pop ups."[6] Second, many coworking actors in peripheral areas aim to permanently establish locations for communication, encounters, and innovation. They seek the medium- and long-term development for the spaces themselves and the environments in which they are embedded. This stabilization can be achieved through ongoing care and repair work, as well as through infrastructural elements such as buildings and furnishings (see the section on empirical perspectives). Additionally, many rural CWS in particular are integrated into networks, such as the CoworkLand cooperative. It provides learning and exchange spaces (web-meetings,

6 The CoworkLand cooperative offers interested parties the opportunity to evaluate their needs in a time-limited testing phase with pop-up coworking, https://coworkland.de/de/popup-coworking (Accessed July 30, 2025).

conferences, personal support, etc.), but also concrete infrastructures, such as booking tools and a mapping of CWS in peripheral areas on its own website.

Care

As outlined in the definition of infrastructure work, infrastructures rely on continuous stabilization through care and maintenance. María Piug de la Bellacasa conceptualizes care as a threefold entanglement of labor, affect, and ethics/politics that structure the relationships in care processes (Piug de la Bellacasa 2017, 28). She distinguishes her notion from conventional ethical models by describing care as situational, relational, and speculative. Other scholars emphasize the relationality between care providers and recipients (Mol, Moser, and Pols 2010). From this follows the basic epistemological attitude of thinking/researching with care in order to make invisibilities both tangible and discussable.

This invisibility resonates with a statement from a CWS community manager, in the aforementioned seminar, who noted that she had no official job description, but simply ensured in her daily work routine that coworkers were "doing well" – something at which she had always been good. This reflects how care work is often framed as innate traits, rather than as recognized labor, and this leads to its under-evaluation and invisibility in terms of tasks worthy of remuneration in everyday working life, thereby often remaining invisible. In contrast, IT staff visibly engage in technical care, such as through proactive updates. While both activities are usually equally invisible in terms of infrastructure maintenance, there are differences, especially with regard to the describability of the precise tasks: emotional work (mostly female) is less tangible than technical support (mostly male).

Coworkers also engage in everyday care by maintaining shared spaces – cleaning the kitchenette or refilling coffee beans – contributing to the socio-technical stability of CWS environments in the process (Puig de la Bellacasa 2017; Mol, Moser, and Pols 2010). Such practices render infrastructures invisible by maintaining their functionality. However, when infrastructures – like childcare – fail to meet needs, then they become visible again, triggering the necessity for negotiation. The offensive thematization of care work in the context of digital gainful employment also expresses a fundamental topic in (feminist) labor research: that of the impossibilities and simultaneities of different forms of work.

Michael Liegl's concept of "care of space" (Liegl 2014) helps to frame these observations. While his focus lies on caring for the self, the focus is also on caring for the shared space and municipalities in the case of rural coworkers. Liegl identifies the (in principle) free choice of location by knowledge workers as a resource for creativity and productivity (ibid., 167–168). At the same time, the workers shape the respective places through their discursive and practical work, thereby establishing a reciprocity of place and practice. Care, thus, manifests on several levels:

Firstly, towards organizing everyday life and implementing personal life plans. Secondly, in taking care for community things and spaces. Thirdly, the involvement can extend beyond the CWS by jointly planning and implementing initiatives that affect living and working conditions in general and are based on a common lifestyle and on shared values.

Repair

When repair activities are identified as necessary, it is often due to either changing conditions or due to a lack of care and maintenance that can stem from various causes. In the case of rural coworking, these causes may include major social transformations in the area of labor or inadequate infrastructure in areas such as housing, childcare, and mobility. Although repair practices are often included in care practices, care tends to be preventive, aiming to avoid situations that require repair.

In the context of this contribution, care is understood as a more continuous and invisible process that can include minor repairs. Consequently, repair is a more conceptual process due to the origin of the rupture. As Elke Krasny describes in a field note on repair (2024), spatial repair work means (re)establishing a relationship with spaces and the people involved, as well as with the meaning of spaces:

> "[R]epair […] is a way of relating to broken relations themselves—relations with all the things on the planet that are not working, all its environments that are depleted, all its lives that have been ruined. Such repair insists that these breakages can be addressed. Repair therefore is a process, not an end" (ibid.).

In recent debates on repair practices different approaches are discussed: First, there is the development of emergency remedies or workarounds that are aimed at short-term, individual solutions to problems. Second, there are more fundamental repairs that are aimed at larger transformations. The concept of workarounds also seems to be particularly fruitful for the relatively new and constantly developing practice of rural CWS. Schabacher (2022) uses this IT-term, to describe a general practice of inauthentic solutions that do not correct the problem, but that nevertheless enable work to continue. People, such as facility managers or secretaries, often operate in a workaround mode in work and organizational processes. The function of the community manager described above also ties in here with her situational, intuitive problem-solving practice. Even at the broader level of coworking as a laboratory for rural development, workarounds are likely to be a productive lens that needs to be investigated further empirically. "As an 'improper' circumvention or temporary solution, the workaround calls into question what can be considered the 'right' solution to a problem" (Schabacher 2022, 229; author's translation). Rather than hoping for

perfect, trouble-free infrastructures, the focus here is on the ability to address ruptures, defects, and uncertainties creatively.

In short, infrastructuring as a process and practice requires that coworking actors be aware of different formats of needs, gaps, problems, technical systems, and tasks and helping to shape them care-fully (Niewöhner 2014) in iterative feedback and learning processes. In the following section, I will share some insights from the interviews undertaken about these attempts.

Prospects: empirical perspectives on care and repair in rural coworking

I would like to present three perspectives that emerged from the underlying interviews by building on the previous discussion of rural coworking as a practice of care and repair within infrastructure work. These perspectives could inform further discussions about collaborative spaces in peripheral areas through the lens of repair and care. I am presenting these perspectives in the form of preliminary analytical considerations that should be discussed further.

Pooling of resources

When examining current strategies to revitalize urban and rural centers, one usually comes across the principle of multifunctionality, in which different functions are spatially bundled (BMEL 2022). This principle is also applied in the development of rural working spaces; these can be found, for example, in the aforementioned coworking format 'Neue Dorfmitte' (Bertelsmann Stiftung 2020) or with a focus on the topic of local supply in Schleswig-Holstein in so-called Markttreffs.[7] According to Hölzel and de Vries, the spatial bundling of points of interest (POIs, Hölzel and de Vries 2023), such as doctors' surgeries, cafés, or bakeries, improves the on-site infrastructure's vitality: "The more gatherings and interactions are possible, the denser the network of relationships and exchanges becomes, with this process resembling the workings of a vital organism" (ibid., 5). This allegory relates to the idea of infrastructure as a sociomaterial structure, which in this context is constantly maintained, both by the work of the individual POIs and by those interacting socially. In an interview, one coworking operator described how such a combination of several places for daily needs motivates many coworkers to use 'their' CWS. She has integrated her own kindergarten into her CWS, which also has a canteen for both the children and the coworkers. There is also a fitness studio on site (Interview V.L.)

Additionally, restricting expansion to a few multifunctional centers of collaborative work is a move that is aware of peripheral areas' lower population density.

7 https://markttreff-sh.de/ (Accessed July 30, 2025).

On the one hand, this happens because people who are interested in corresponding with professional or cultural networks can find fixed places for (random, unplanned) encounters and exchanges; on the other hand, financial aspects are at the forefront when pooling resources. Due to the lower population density, there are fewer (potential) users per CWS and for the other services offered in multifunctional village centers. Sustainability is also cited as an aspect for those multifunctional centers: Shorter distances between shopping, medical care, childcare, and places of work save time and CO2 emissions. In addition, the care for personal resources is important because people often continue to ensure the operation and maintenance of these places on a voluntary basis alongside other employment and caregiving responsibilities.

Preservation through transformation

One interview was conducted with the chairman of a sports club that aims to make sports clubs more future-proof through digitalization and comprehensive health education (Interview D.B.). The club implemented a coworking space as part of this initiative. This offer also represents a bundling of functions, where parents are provided with a workplace while their children train or allow them to train near their workplace. This example addresses how to both maintain and make viable structures that are worth preserving in peripheral areas through sustainable transformation. Identifying needs and both negotiating and implementing these transformations requires the "with care attitude" (Piug de la Bellacasa 2017) mentioned above, combined with the ability to try out new offerings, to wait for developments, and ultimately to either adapt or discard them.

Gabriele Schabacher derives from the Latin origin of the word re-parare that a form of repe-tition is always inscribed in the practice of repair, to the extent that a previous condition is restored through repair. This implies the possibility of transformation on the one hand, but also a return to what was previously given and is now no longer functional on the other (Schabacher 2020, 222). Following this logic of restoration and repetition of repair in rural coworking reveals a juxtaposition of new, forward-looking practices, technologies, and (infra-)structures. However, there is also a desire to both restore and prove the validity of practices, infrastructures, and ideas of living and working together as well as notions of rurality. An important task for recent rural development would be to both ask for and to include knowledge from previous repair and transformation processes undertaken in the respective villages.

This is particularly evident in the conversion and renovation of buildings. Many coworkers describe the planning of rebuilding and conversion processes (often involving a high proportion of their own work) as a kind of dialogical process between buildings and users. They also highly value the preservation of old building's

elements, such as facades, doors, and appearance. Inside, however, the focus is on the most recent technological and sustainability requirements. Even after that, as cowork operator B.M. puts it, "the house is seeking its people." This also often applies to places used by the public previously, such as post offices or corner stores and that had been used as meeting places.

Another coworking operator emphasized the relevance of demand-driven developments, explaining that CWS are subject to different developments that coincide with larger structural or demographical changes. In practice, this manifested in part of the CWS he co-operates having to shut down, due to reasons relating to building law. This meant that adjustments had to be made to the overall utilization concept (Interview F.M.). Here, the agency of building infrastructures can also be seen and it sometimes hinders usage, in combination with other factors.

The repurposing of these buildings and the revitalization of their locations and infrastructures are also of political interest in economic and spatial planning (Thornton et al. 2023). Networks in coworking and rural development can create recommendations and policy papers for policymakers, partly based on their experiences of living and working in rural areas. For example, they illustrate the added value that municipalities gain by not selling vacant properties to the highest bidder, but rather by focusing on the best concept for the common good (Nickisch et al. 2023).

Bridging infrastructural gaps as/with care

Locally available, situated knowledge about dealing with change is an important aspect of transgenerational collaboration that can be taken into account. This is often overlooked when newcomers establish new forms of living and working, such as CWS. The design of such places should prioritize the development of spaces, practices, and technologies that respond to the needs of all those involved, including the local environment and infrastructure.

As described above, a large proportion of coworkers are either self-employed or have flexible employment relationships. Therefore, it is reasonable to test solutions based on flexibility and location to address the compatibility of gainful employment and care activities. In interviews with coworkers who provide care, inflexible pickup and drop-off times at kindergarten and a lack of emergency childcare options were mentioned as problems, especially for the self-employed. Other childcare infrastructure gaps that were mentioned included homework tutoring and school transportation, which worsen conditions for care providers who are pursuing gainful employment.

These gaps are filled by workarounds in individual cooperation in rural CWSs. Parents take on tasks and, in turn, CWSs offer short-term childcare. Additionally, a few CWSs create tailor-made childcare structures with their own kindergartens. Cowork operators carry out long-term repairs by intervening in the existing infras-

tructure. For example, they renegotiate childcare regulations with both providers and politicians (interview with V.L.).

The care and repair activities related to negotiating work and rural infrastructures, at different levels, are sometimes associated with exhaustion and limited solutions. Exhaustion occurs when the amount of work, whether visible or not, becomes too heavy to integrate with personal goals and activities. If important services cannot be provided as a result, then it is often problematic, partly because it weakens trust in the promises made and negotiated (Färber 2023). However, the limited duration of collaborative workspaces is also an intrinsic characteristic of experimental, speculative care ethics. "Such, then, is what failure calls for in an ethics—or, should we say, ethos—of care: try again, try something a bit different, be attentive" (Mol, Moser, and Pols 2010, 14).

Remaining visible?

In conclusion, the question arises as to whether the invisibility of infrastructural work in CWS should be reevaluated. On the one hand, repair work is carried out relatively publicly and communicated intentionally and addresses coworking spaces as laboratories of the future, by both politicians and coworking actors themselves. This approach is necessary to secure funding and to foster participation. However, many forms of care and maintenance performed in the ongoing operation of these spaces remain invisible; familiar or social care work is often overlooked, for example.

What are the implications of this, especially for peripheral areas? Could recognizing and highlighting the necessity of infrastructure repairs help to establish them as a collective process and shared responsibility? Should infrastructure become invisible again after repairs have been made, or does the visible patch hold its own value? To this end, we must relate the idea that infrastructures are never fully functional, thereby requiring constant repair and maintenance, to the problematization of care and repair practices as a means of stabilizing unequal social conditions. For example, this can be seen when state responsibilities are turned into private duties (Sadler et al. 2024; Tronto 2020). Could it highlight broader structural deficiencies that have only been addressed through social repair temporarily (Schabacher 2020, 211 ff.)? If multifunctional local spaces and CWS increasingly take on public service roles formerly held by state or municipal institutions, we risk reinforcing the invisibility of labor that such initiatives aim to challenge – this time under the guise of civic engagement.

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