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Covid-19 and environment: citizens in search of proximity with nature

The measures taken by governments to limit the spread of Covid-19, particularly containment, have restricted the opportunities for people to access nature. These restrictions have affected individuals and put at the heart of the debate the role of the link to nature for mental and physical well-being. Beyond this, the pandemic and containment have led to changes in the perceptions of time and space: part of the population is questioning its relationship with its surroundings and its way of life. [According to researcher Anne Caroline Prévot](#), containment could thus bring us closer to nature. Are we heading towards major upheavals in terms of urban planning, food, or leisure practices? Will the pandemic profoundly transform the relationship between individuals and their environment in a more ecological perspective?

Several searches in the WPRN database offer interesting avenues for reflection and useful recommendations for public authorities.

Confinement has led part of the population to become aware of the benefits of the relationship with nature (1). More and more urbanites are showing a willingness to leave the city, raising fears about the risk of negative environmental impacts (2).

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The need for access and proximity to nature revealed by containment

Free access to nature called into question by health measures

During the first confinement in France and in several countries, the possibilities of access to nature were totally closed (urban parks, forests, beaches, mountains, etc.). These restrictions caused a feeling of lack among part of the population. This lack may have generated an awareness because there is an increase in the expression of the need to connect with nature. [According to a YouGov survey](#) conducted on June 17 and 18 on 1000 respondents representative of the population, 67% of French people feel that they have missed nature during the confinement and 67% that they intend to enjoy this nature during the summer. Major protests and petitions had taken place during the first confinement to ask for the reopening of natural spaces, which shows that the ban was difficult to implement. In the United States, [a University of Pennsylvania study available on WPRN](#) measured changes in outdoor activity practices at the height of the pandemic. The 1,000 respondents consulted in 3 phases were regular practitioners of outdoor activities. The study found a sharp decline in nature-related activities that primarily affected urban dwellers. Moreover, half of the respondents believe that the pandemic will change their leisure experiences in the long term. The change most frequently cited is a more frequent use of local natural areas.

Symmetrically, when access to nature was possible, it was strongly favored. In the Nordic countries, confinement was less strict, and access to nature was encouraged. [A study of the city of Oslo surveyed on WPRN](#) measured the rate of use of natural areas using mobile and Google location data. It shows that the use of nature has increased considerably during confinement. It has increased almost fourfold compared to the average of the previous three years for the same period. People going out into nature every day accounted for almost one sixth of Oslo's population. The more remote and wilderness trails were, the more people used them. For the authors, this over-use is explained by the fact that nature provides a refuge from the stress created by the crisis. They also hypothesize that the practice of leisure activities in the wilderness, allowing social distancing, played an important role in the fight against the spread of the virus. Similar results were found in Sweden, [as summarized in this study](#).



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The proven beneficial role of contact with nature on mental and physical health

[As the previously mentioned American study](#) reminds us, important eco-systemic recreational services are provided by nature. And physical interaction with the natural world leads to reduced stress and improved well-being. In particular, contact with nature plays an important role in alleviating the psychological and physiological effects of crises. These benefits have been demonstrated by several medical and psychological studies and are summarized in detail in [an American study](#) and [a WHO Europe document](#).

Thus, the analyses all come to the same conclusion: public authorities must ensure better access to natural spaces for their citizens. In the short term, everything must be done to avoid a new ban on access to natural areas. The studies recommend, for example, the creation of pedestrian corridors instead of roads in the heart of cities. Urban parks could have extended time slots to allow for distancing. One-way lanes could be established on hiking and walking trails. Access to peri-urban natural spaces should be facilitated. In the long term, the creation of more green infrastructure in the heart of cities and the safeguarding of existing green infrastructure is recommended, particularly in the event of a new pandemic or major crisis.

The evolution of individual aspirations and its environmental impacts

New representations of the ideal lifestyle

[Before the pandemic \(in 2019\) an IFOP study noted that 81% of French people](#) consider country living to be the ideal way of life. This wish is anchored and echoes the dream of the single-family house with a garden. But until now few seemed ready to take the plunge. The pandemic may have been a trigger to make this wish a reality. During the first confinement, one in five Parisians left the city to spend it elsewhere, [according to INSEE data](#), mainly in the countryside close to nature. This renewed enthusiasm has led to an increase in real estate searches outside the major cities. [An OpinionWay survey in October](#) reported that a quarter of Ile-de-France residents want to buy in the provinces and [the Se Loger website](#) notes that the number of people looking to buy a home with a garden increased by 25% in 2020 compared to the similar period in 2019. The main reasons put forward are the search for peace and nature.



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More broadly, this desire seems to be part of a change in perceptions of the relationship to time and the environment following the pandemic. A search for proximity and a link with the local is noted. [A study based on the WPRN database conducted for the British government by YouGov](#) illustrates this evolution. The study, with a rigorous methodology, is based on 4343 people representative of the British population. Only 9% of the British people want everything to return to the way it was before the pandemic. Concerning food, 42% of respondents consider that their relationship to food has changed and 38% believe that they cook more from raw products than before. 6% of British people also consumed local products for the first time during the containment. We can thus note a search for proximity in the food supply and a willingness to pay more attention to the quality of its food. The way of perceiving one's environment also appears to be more contemplative: 27% of the people surveyed said that they had noticed the presence of wildlife more often (a figure that can also be explained by the increase in wildlife due to the drop in human activity following confinement). On this theme, a study carried out by researchers affiliated with the CNRS and the Sorbonne, [visible on WPRN](#), and whose results are not yet known, will be followed closely. The study seeks to analyze the relationships of humans with other animals during confinement to assess whether confinement has led to better attention to other animals.

A temptation of urban exodus that is not without risk for the environment

The expressed desire for a stronger connection with nature suggests a significant awareness among citizens of the need to protect this nature. This awareness is a source of hope in the context of the major environmental problems that are looming. However, as mentioned above, the pandemic has also been able to give concrete expression to the desire for the ideal of country living. This way of life is becoming more and more accessible for part of the urban population with the development of teleworking. The impacts of an urban exodus, thus encouraged and facilitated, should be carefully assessed. [A study by Israeli academics available on WPRN](#) reminds us that urban sprawl leads to a lifestyle that increases greenhouse gas emissions, promotes global warming, and increases pressure on farmland, forests and biodiversity. In addition, the study analyses 271 Israeli cities using population density factors and public policy variables to assess whether population density is a factor in the spread of Covid-19. The study found no link between population density and the development of the epidemic. It shows that it is primarily the quality of the public health policies implemented and their respect by the citizens that determine the level of spread of the virus.



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Nature as a vector of resilience

Ultimately, these different analyses demonstrate the important role of contact with nature for the well-being of citizens. The pandemic may have been a trigger for this awareness. As [a Swedish study](#) reminds us, access to nature is a major factor of resilience. Resilience, which can be defined as the capacity to absorb an exogenous shock, is a crucial notion for dealing with crises such as this pandemic. Studies converge to emphasize that access to nature in the immediate environment of citizens must be facilitated and improved. Making ecosystems more accessible to urban dwellers could limit the temptation for part of the population to leave the dense city to adopt a peri-urban lifestyle. Otherwise, urban sprawl risks generating major negative externalities for the environment. Resilience is also a crucial notion for coping with climate change in the coming decades. Several ongoing studies of the WPRN database propose to reflect on the lessons to be learned from the pandemic in order to respond to the climate challenge. [A study from the University of Amsterdam](#) seeks to understand why societies and individuals have been able to profoundly and rapidly change their behavior to fight the pandemic and are not able to do the same to fight climate change. [A British study](#) more generally seeks to find the ideal combination of public policies and changes in individual behaviour for a more sustainable society in the long term.

This note is based on a number of resources from the World Pandemic Research Network

Taff, Brendan Derrick. «Current and future outdoor recreation behavior amidst COVID-19».

<https://wprn.org/item/421352>

This study is an American national survey conducted on 1000 people practicing outdoor recreation and carried out in 3 waves. The study seeks to measure the impact of the pandemic on the current and future practice of outdoor recreation. The results show that the health recommendations to combat Covid 19 have significantly reduced the possibility of access to outdoor recreation among the general population. Urban dwellers were the most affected. Moreover, the study reminds that access to nature plays a very important psychological and physiological role during crises to mitigate the negative effects, especially in terms of stress. The authors, drawing on proposals from other research, recommend that urban planners and public decision-makers develop strategies to facilitate outdoor activities for urban populations during the pandemic. They consider the improvement and expansion of green infrastructure to be a crucial issue for the future.

Venter, Zander. «Urban nature in a time of crisis: recreational use of green space increases during the COVID-19 outbreak in Oslo, Norway».

<https://wprn.org/item/438652>

This study sought to analyze the use of nature by Oslo residents during containment. The movements of tens of thousands of inhabitants were collected from mobile user data and Google mobility data. The results show that leisure activities in the wilderness were multiplied by 4 (increase of 291%) during the confinement compared to the average of the last three years during the same period. The percentage of Oslo residents engaged in nature activities increased from 4.1% to 14.6% per day. Google searches for «nature» or «forests» have also increased. Most of the increase has been in the wildest areas, but urban parks and peri-urban forests have also seen a large increase in use. According to the authors, this study shows that urban nature is a strong resilience factor in the face of crises. Policy makers are encouraged to ensure good quality natural infrastructure to cope with similar over-visitation in future crises.

Taff, Sommer, Udi; Mualam, Nir. «Political Environment Aspects of COVID-19: Political Urban Attributes, Density and Compliance».

<https://wprn.org/item/496752>

This study by researchers from three Israeli universities studies 271 Israeli cities over the first three months of the epidemic's spread in Israel. The study found no evidence of the impact of population density on the spread of the virus. The authors show that the determining factor in the level of the virus' spread is the quality of public policies and their compliance by the different categories of population. They warn against the risk of major environmental damage if the desire to de-densify cities following the coronavirus pandemic were to be followed up.

MacMillan, Tom. «UK food behaviour and attitudes YouGov poll».

<https://wprn.org/item/412052>

This YouGov poll, conducted by the UK government's Food, Farming and Countryside Commission, questioned 4,343 British citizens, between April 7 and 9, 2020, about changes in eating behavior reported after approximately two weeks of confinement. Among the main findings, only 9% of those surveyed wanted everything to return to the way it was before the pandemic. A significant number of respondents, 38% believe they are cooking more from raw products than before the pandemic. 42% consider that their relationship to food has changed and see it more as essential. 6% of respondents have started to try vegetarian food and 6% have ordered food for the first time from a local farm. 51% say they have noticed an improvement in air quality and 27% an increase in wildlife since the beginning of the epidemic.

Ongoing studies that can be consulted on WPRN will be followed closely

Riboulot-Chetrit, Mathilde. «COROVIA - Lockdown and Relationships to Living and Environment

<https://wprn.org/item/444052>

This ongoing study aims to explore the relationship of the French with their environment, and in particular with other living beings, during the 8 weeks of confinement. The authors, affiliated with the Sorbonne Paris 1 and the CNRS, seek to assess whether, thanks to confinement, humans have begun to pay greater attention to other living beings.

O'Garra, Tanya. «Sustaining Pro-Social and Environmental Behaviours beyond Covid-19».

<https://wprn.org/item/436752>

The authors of this ongoing English study will conduct a series of behavioral surveys over the next 12 months. The aim is to provide visibility on the «willingness of individuals» to reduce their consumption in order to reduce carbon emissions. Thus, the study seeks to find the optimal combination of public policies and changes in individual behaviour for a sustainable environmental and social trajectory after the pandemic.

Meijers, Marijn; Wonneberger, Anke; Scholz, Christin. «Can we learn from our dealings with the coronavirus to stop climate change?»

<https://wprn.org/item/424252>

This study is currently being conducted by academics at the University of Amsterdam. Researchers are investigating the difference between the level of motivation of populations and governments to face the pandemic and to cope with global warming. While populations have adapted very quickly to the pandemic threat, too little is being done to fight global warming. This study will be based on surveys and will attempt to understand the motivations that motivate individuals to change their behavior. The aim will be to use this knowledge to encourage behaviour that limits climate change.

Other important studies cited

Samuelsson, Karl; Barthel, Stephan; Colding, Johan; Macassa, Gloria. «Urban nature as a source of resilience during social distancing amidst the coronavirus pandemic».

<https://osf.io/3wx5a/>

This study bringing together different researchers from several Swedish universities highlights the role of urban nature as a resilience factor. In particular, it shows its role for the well-being of individuals in times of crisis. In particular, the authors call on public decision-makers to be better prepared for the fact that crises are likely to become more frequent in the decades to come.

Holland, Hunter; Powell, Robert; Thomsen, Jennifer; Monz, Christopher. «A systematic review of the psychological, social, and educational outcomes associated with participation in wildland recreational activities».

<https://js.sagamorepub.com/jorel/article/view/8382/6414>

This American study consists of a review of the existing literature on the psychological, social, and educational consequences of outdoor activities. It appears that the benefits on all of these aspects are undeniable.