Acting at a distance – prevention of mould or promotion of healthy housing

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# Abstract

Housing and health have been subject for health policies for several decades. The subject is currently gaining attention from several disciplines and “healthy housing” is establishing as a field of multi-disciplinary research. One of the issues that concern both health and housing is the phenomenon of mould. As one of the sources of indoor air pollution, mould is associated with health risks such as respiratory symptoms, asthma, allergy and immunological reactions. The very microbial exposure and the health effects are complex matter, but so is the cause. Mould growth is the result of a time-dependent process including relative humidity, temperature and organic material; and each of the factors can both be caused by the building structure itself and/or the use of the building. Due to the uncertainties in quantifying the relation between conditions, exposure and effects it has been impossible to set definitive guideline values or thresholds for tolerable quantities. Consequently, emphasis is put on prevention: WHO address action by relevant stakeholders – including building owners, developers, users and occupants, but also the responsibility of public authorities to regulate and guide.

But is the issue communicated? Regulations, guidelines and information campaigns tend to focus on the negative health impacts and the prevention of hazards and risks. This knowledge often appertain a growing concern about the health risks, however, knowing the consequences doesn’t necessary result in a change of practice. As an alternative or addition to the preventive regulatory action is the promotion of health : encouraging well-being and setting the conditions for people to obtain and maintain a healthy home.

Various approaches are taken to solve or avoid the problem and this paper explores further how, in the Danish context, national regulations, health policy, guidelines and local initiatives manage to work with the problem in different ways.

Keywords: Healthy housing, mould growth, classification, prevention, everyday practices

# Background

The paper is part of an ongoing PhD-project entitled ‘Healthy Housing in a Sustainable Development’. Research positioned in the intersection of health and housing has long been predominated by the classical scientific approaches: In the field of indoor environment, an interdisciplinary approach has emerged, with microbiologists, health professionals and engineers working together (Gravesen, Nielsen, & Valbjørn, 2002). The mould issue have been approached from different fields of science and in the other Nordic countries related research programmes have been established addressing the problem in relation to allergy, methods of diagnosis and building construction (Pirinen, 2012; Boverket, 2010), and in recent years, there have been determined efforts from authorities and housing organisations in communicating the issue to the public (Becher, Øvrevik, Høie, Bakke, & Holøs, 2016; Folkehelseinstituttet, 2015; Folkhälsomyndigheten, 2014).

The main scope of the paper is to investigate the information and guidelines addressing the prevention of mould growth in housing in the Danish context. The historical outline illustrates the contexts and course of the contemporary conventions, where these practices of policies are located. The conventions play a pivotal role in co-constructing the contemporary understanding of the phenomena, through its classification of both problem and solution.

Due to the complexity of reality, the scientific understanding is often challenged when communicated outside these research environments. This article questions the role of the knowledge communicated in prevention efforts. Approaching the field from an ethnographic perspective and with the point of departure in the issue of mould growth, the overall objective of my study has been to understand this specific phenomenon in the context of everyday life and of everyday people.

# Methodological and theoretical approach

A desktop study have been conducted exploring documents, reports and articles, reading regulations, legislations and guidelines, concerning the historical trajectories from the early 20th century until today. The literature search included the archives of WHO’s international websites, the Danish websites for architectural tradition [www.danskbyggeskik.dk](http://www.danskbyggeskik.dk) and the archives of the national health authorities. Through ‘snowballing’, these publications led me on to other materials, following their references and cross-references. Due to the fact that the Danish term for mould, ‘skimmelsvamp’, has changed in this course of time, the search also included the search words (in Danish) ‘dampness’, ‘moisture’ and ‘microbial fungus’. Due to the pamphlets and guidelines, I have searched the different housing associations and the different relevant national organisations. The translations cited from Danish publications are my own.

Normally invisible to us, norms and conventions constructed in one scale are translated and have great impact in other scales. An analytical hierarchy of scale, that often is taken for granted and shape thoughts and practices at ‘all scales’. Actor network theory (ANT) breaks with the working classification of scales, and see humans, substances and things working across these scales. Acting at a distance is in this context not referring to quantum mechanism, but concern the work of inscriptions. An inscription is a translation of someone’s interest into material form (Callon, 1986). The translations are made to work in the network of actants, to intentionally affect/regulate/persuade/convince etc. The most effective inscriptions, the *immutabile mobiles* (Latour, 1986), are easily transported without change of inherent characteristics.

# Historical outline of the classification(s) of mould: as construction issue and as health risk

The phenomena we today know as mould, Microbial Fungi, has been part of nature’s decomposition processes for billions of years and an actor of human’s home environments, as long as we have built houses. Its presence and treatment is described in Leviticus by the term ‘defiling moulds’ and Vitruvius address considerations of climates to assure the healthiness of a dwelling:

“In libraries with southern exposures the books are ruined by worms and dampness, because damp winds come up, which breed and nourish the worms, and destroy the books with mould, by spreading their damp breath over them.’” (Morgan,1914, p. 181)

Air change in dwellings and how to assure it, is also described in the textbook for house building (Gnudtzmann, 1888):

" there are more or less valid theories of how to determine the scale of the air change needed to assure the health of individuals.... the most important thing is that the residents themselves realise the importance of obtaining fresh air supply; because, then this can always be provided, if one only allows the cold air.’

In the late ninetieth century, the discovery of bacteria and microorganisms and the effort to fight the epidemics of cholera and tuberculosis intensified the focus on public health. The controversies regarding this new status of health was also seen in the field of construction:

'Regarding the hygienic disadvantages of accommodation in newly built houses, it prevails partly obscure, often exaggerated conceptions both among professionals and laymen. If the health hazard really was as big as frequently assumed, this would best be observed in the conditions of the larger cities, where the increase the last 20-30 years has been great both regarding the number of inhabitants and the number of buildings. If the accommodation in new buildings posed a health risk, it would be traceable as increased morbidity and mortality in the population during these great construction periods, where the new houses often are taken into use immediately after the craftsmen have left them. ‘(Møller, 1901)

Healthy housing was part of constructing the welfare state, providing security and wellbeing to all citizens. A housing committee was established in 1916, taking over the authorities from the ‘health police’ to supervise the health of housing. At this time the link between microorganisms, indoor environments and health effects was somehow acknowledged, but it seems to fade in the course of the next couple of decades. During the industrialisation construction changes: the different disciplines specialise, new materials, new building techniques, new construction and new technical knowledge entering the scene. In this context, health was related to the increased comfort due to the new technologies:

'Hygiene literally translated means health-theory and building hygiene is then the theory of the measures undertaken to make the building or dwelling useful and healthy for accommodating people (Ejlertsen, 1938).'

The book on housing hygiene (ibid.) presents new technical aids as the toilet, basin and bath, as well as water-, gas-, lighting-, heating- and ventilation systems – which soon turned into the standard of new housing. Parallel to this progression and new standards, worn-out housing areas were classified as unhealthy and slum clearance requested. However, in this context the mould was not yet an issue. The professionals of construction were most concerned with its wood-digesting relatives, and in microbiology and medicine professionals were busy celebrating the discovery of the *Penicillium chrysogenum* and its capacities as antibiotics.

Nevertheless, during the sixties, reports on allergic reactions due to damp buildings kept increasing. In the seventies, research in occupational allergic issues, related some of these allergic symptoms to microfungi in the indoor environment (Gravesen, 1979). Reports of building related symptoms where identification of the actual cause showed to be problematic, made the basis for diagnosis such as *the sick-building syndrome* (SBS), where mould was considered one of several causes.

These findings were addressed in a European initiative - The European Collaborative Action ECA "Indoor Air Quality & It's Impact on Man" operating from 1988 -2007. In this work Danish researchers were also represented, including a researcher from the Danish Building research Institute who co-authored the 4th report on SBS (ECA, 1989). Further, a Danish pharmacologist co-authored report no.12 on biological particles (ECA, 1993), including a review of the contemporary research on microbial fungi, counting existing sampling methods and models for analysis, and recommendations for future studies. This pharmacologist later joined the institute for building research where a larger research programme on mould in buildings was established. Parallel to this national and regional effort, WHO have been working globally, where especially the ‘health for all’ policy framework initiated in 1980, has supported the still ongoing work on establishing scientific consensus, policies and guidelines.

## Diagnosing

The work of classifications and consensus-building is an open-ended process. In science, new research challenge existing models and understandings, nevertheless the scientific knowledge is almost by rule mediated as the ‘truth’. As de-contextualised representations, the scientific inscriptions are considered matters of fact. These matters of fact are employed when assessing and diagnosing the cases of the everyday.

However, the practice of diagnosing is a complex process. If we start with the symptoms these are multiple, and can have multiple causes. Presence of mould in the indoor environment have since the 70’ies been related to a range of respiratory health issues, from asthma and allergy, allergic rhinitis to headaches, fatigue and vertigo. The reaction varies from immediate to hours delayed. It can be triggered by several other allergens than mould: In our indoor environment, in food, or even in the great outdoors. When a patient addresses his/her physician with asthma and allergy, their indoor environment and mould-problems is only one of the parameters when screening for possible allergens. Consequently, identifying the underlying cause in such a diagnostic process requires an active, responsive physician and a close dialogue. **Second**, people’s response to allergens are by large diverse. In a household a mould problem can cause severe challenges for one individual and none for the other. Generally, children are more sensitive to allergens than grown-ups as their immune system is still developing. Old, pregnant or individuals with a weakened immune system are less tolerant to the allergens. Nevertheless, healthy people can also experience severe impact on their well-being and eventually develop sensitivity or allergy. A blood sample or a skin prick test can show if the patient is allergic to a given mould species, but one can even get harsh symptoms being allergic so the diagnosis is tricky. Third, up until recently one have assumed that different species had different effects, where the mycotoxins produced by Aspergillus, Penicillium and Stachybotrys made them the ‘bad species’. This somehow acquitted the other species as less toxic. However, recent studies casts doubt on this, and perhaps none of the species can be acquitted. **Fourth**, the diagnostics of the suspect substance is also problematic. Despite of different methods for sampling and analysing on the market, there are no official national or international standards. Methods are changing due to new technologies, market demands and scientific research, and the different players on the marked drive the innovation. The different methods produce different results which can be a challenge to interpret. **Fifth**, the practices of removal and remediation are also diverse and the scenario of mould, ‘hidden’ inside the construction, under the floors or inside a stud wall construction, challenges the classifications: Is it still part of the indoor environment and a health risk to the occupants? Recent studies have shown that drying mould, which earlier have been considered less affective, on the contrary is more hazardous. **Sixth** and adding to the complexity is the multiple causes that can be triggering the mould. Due to the question of risk and responsibility this is perhaps where the deadlocks most often occur. Damp conditions can be caused both by constructional issues and inadequate use of the building - most often it is a combination, but sometimes the question of responsibility turns into a dispute. Controversies of who to blame are for example seen regarding housing sales or in rented housing, where the responsibility for maintaining the building is shared. In this setting the causal diagnosis of either the occupant or the house is also used to place the obligation to fix the damage.

The diagnostic dilemma is illustrated in the case of SBS where the practice of diagnosing is conducted on an individual level opposed to the definition where the diagnosis concern a system level (the individual(s) *and* their environment) (Thörn, 1998):

“…considers SBS as something that afflicts the building and has the potential to cause disease, while in the former case it seems to consider it as the expression of an individual disease. These two different views probably reflect the fact that the SBS definition is dualistic, containing both outcome (symptoms) and exposure (building).”

Essential for any translation process, is the interpretation and simplification. The translation will always be influenced by the translator's specific interests.

## Practices of prevention I: policies and guidelines

Answers to the question ‘why it is so hard to prevent mould growth in our buildings?’ have shown to be multiple (Øien, Submitted a): Multiple causes and multiple interpretations, and the multiple efforts to control or prevent it. When the mould gets classified as a health risk, an arsenal of regulations take effect: Laws regarding health risks in dwellings include the Social Housing Act, the Urban Renewal Act, the Building Act and the Rent Act. These regulations don’t address the mould directly, but through its classification the field regulated is extended. Based on these extended regulations, authorities as the Health Authority and the Working Environment Authority draft guidelines and plans of action for managing the future situations.

In 1996 the Health Authorities closes the department originally working with health risks. Then again, the following year the Danish Building Research Institute initiated a concentrated and cross-disciplinary effort in the field (Ingeniøren, 1997).

In 2003 the government presents a strategy to protect the health of the population against environmental factors (Regeringen, 2003). Included in their ten goals was a) to reduce the negative health impacts of pollution in outdoor air and indoor air and b) to reduce the incidences of allergy and respiratory diseases.

The strategy presents a ‘coherent and increased’ authoritative effort to inform the public on how to improve indoor air quality in homes. Including information concerning building construction, building operation, maintenance, ventilation and cleaning. In order to ‘prevent adverse effects on health from the indoor environment’ the strategy calls for a mobilisation of research: to better understand how and to what extent the various environmental factors in the indoor environment affects us’. The overall objective was to ensure good indoor air quality and minimising the health risks - of ‘discomfort, diseases and symptoms’ (ibid.).

The initiative also launched a coordinated working group to ensure a coherent effort from the authorities. The objective of the working group was among others to improve the collaboration regarding preparation of guidelines and other initiatives, comprising *quality-demands* and *threshold values.* The existing knowledge in this area should increasingly benefit the population through increased communication and consultancy.

The following years was accompanied by an extensive political action on the mould issue; initiatives from the Ministry of Economic and Business Affairs, the Ministry of Welfare, the enterprise and construction authorities and the health authorities. Proposals for an building damage insurance, tightening of the building regulations by documentation-requirements of moisture conditions in the building permit application (Økonomi- og erhvervsministeriet, 2007), procedures for handling the mould issues for respectively the municipalities (Velfærdsministeriet; Erhvervs- og byggestyrelsen, 2008) and the private landlords (Velfærdsministeriet, 2008). Additionally, information material about mould for tenants in social- or private rented housing were translated into four foreign languages.

# Situated in everyday life

The political and scientific efforts can be seen as different ways of controlling, managing or preventing the mould issue. The phenomenon is translated into different means or inscriptions and guidelines for keeping it absent – especially concerning the regulation and guidelines for the building design. But the political efforts also address practices of how to prevent and manage the phenomenon if it occurs, divided among different areas of responsibility, such as the municipality, the house owner and the tenant. In rented housing the everyday use and maintenance is often shared by several, typically the interior being the tenants’ responsibility and the exterior the building owners’ or the housing associations’ responsibility. The next paragraph illustrates some of the information material that is part of preventing the mould issue. The inscriptions are used to articulate a concern, in order to get the concerned to take responsibility.

## Practices of prevention II: The Information pamphlets

The scientific knowledge is communicated to occupants and staff operating the buildings through information material. First of all, as guidelines of how to prevent the actual mould problems and second, informing about the substance and its health effects. The pamphlets have mainly been produced by the social housing organisations or the National Building Fund for distribution to the occupants, and often part of the information handed over when moving in.

A pamphlet, designed for the superintendents and caretakers (Valbjørn & Clasen, 2002) list both constructional concerns and the importance of instructing the occupants. The guidance is overall action-oriented, as it describes procedures for inspecting, maintaining and repairing constructional damage caused by damp or mould. The last page stress that mould can cause disease and damage to both occupants and building. However, the constructional concerns represent 80 % of the bullets presented, and the title of the pamphlet ‘Avoid damp and mould damaging the *property*’ illustrates the underlying emphasis on the building as such.

Both the material for the occupants and the material addressing the caretakers are largely prescriptive and ‘calling for action’. In one of the pamphlets for tenants (Landsbyggefonden, 2008) four of the five recommendations are instructions on what to do: ‘air out’, ‘do not dry clothing inside’, ‘use exhaust fan’ and ‘keep lookout’. Likewise the five steps for removing the mould are action-oriented: ‘check the residence’, ‘remove the cause’, ‘clean the mouldy area’, ‘check…’ and ‘contact the maintenance staff…’ Everything but the last step addresses the occupant and his/her opportunity for action. This information ‘postcard’ is translated into seven languages for handout to the tenants. It doesn’t really say much about the mould as such, except referring to a website where the phenomenon is explained quite thoroughly, including the multiple causes and the potential health issues. Information material from the same campaign, but addressing the janitors is much more comprehensive. This brochure recommends early intervention, based on a common interest for both building and occupants, and call for dialogue and collaboration.

The damage- or disease prevention communicated pass on these underlying cultural attitudes. As inscriptions translating a message: *the mould is dangerous*, to encourage certain behaviour. In this translation, the responsibility is largely put on the individual, who is expected to take this obligation. The matter of fact mediated – *the mould is a health risk* – turns into a matter of concern.

## Re-contextualised

These campaigns and information pamphlets may seem simple and straightforward, but looking at the mould problem, it doesn’t seem to have had the convincing effect. As stated in a technical building instruction already 70 years ago about the overall problem of dampness in buildings:

'Just twenty years ago one was unsecure about the problems, but today we know it so well that the problems of dampness in standard construction should be eliminated ... The understanding of most of the phenomena is due to the simple fact that water humidity is finding the coldest spot. ' (Becker & Korsgaard, 1957)

The janitor manages several buildings and even more residents and meets all kinds of people, both those taking good care of their apartment and those less good at it. The buildings might be just as unpredictable and different, and the colleagues of janitors are themselves unique individuals, develops customised practices for the different scenarios (Øien, Submitted b). The team of janitors, for each department varying from a single part-time position to a staff of several, practices the day- to-day operation and maintenance of the buildings. In rented housing the people living in the units do not own them themselves, which encompass another layer of relationality with multiple interests at stake: Sometimes causing problems due to questions of responsibility and maintenance, both concerning landlords not maintaining the building structure and tenants misusing the interior of the tenancy. For private housing the insurance industry frequently deal with disputes between residents and landlords, buyers and sellers of dwellings. The field of insurance practice the construction technical classifications, where the mould in deed has shown to be hard to classify. Not posing a direct risk for construction as its cousin dry rot and other wood-decaying fungus, it has traditionally not been covered by the insurance.

On the other side, the tenants are of course most concerned with their own health, and the mould issue is diagnosed and communicated on an individual level. And by the classification as a health risk it makes it a potential concern to all. Due to its microscopic scale the mould primarily exists as an abstract and inaccessible conception or a suspect if one experiences allergic symptoms (Øien & Frandsen, 2015). It seems as if each of the professional stands considers the problem to be (theoretically) manageable, but in practice it turns out that most variables, however neatly classified, doesn’t fit in real life. As part of everyday life and practices, the regulations and guidelines are re-contextualised. In real life these inscriptions are weighed against all other possible norms, guidelines, routines, more or less scientifically proofed. In the case of the occupant, his or her everyday practices concerns economical, practical, social, political and cultural considerations: saving energy, money, time, space or effort; then it may well be no use to open the window? Or it might be the best or the only solution to hang-dry the laundry in the living room or the bedroom. The hood might be too noisy to use or even too ugly to install. An information pamphlet encouraging you to open the window, merge with your cultural background and upbringing, but is also situated in the context of household technologies.



Figure 1. Excerpt from a pamphlet from the fifties, instruction of how to avoid dampness (SBi, 1954).

Figure 1 shows an excerpt from an information campaign from the fifties(SBi,1954): By large the same message as the pamphlets seen seventy years later, however the contemporary household is a complex hybrid of all different technologies, that easily question the practices of fx opening the window.

The context of our hybrid contemporaries as consumption-, risk- and information-society makes it all diffuse. Challenges of maintaining a healthy indoor environment and keeping the mould out is a more complex act than first assumed by the different schools of thought - and mould is definitely not caused by the occupants’ bad habits alone.

Latour (2004) describes matters of facts as being naturalised and objectified by science, only partial, polemical and political renderings of matters of concern. The mould resists being treated as a matter of fact, or put in another way; these *different* facts, indeed makes it a matter of concern.

## Adding promotion to the toolbox

The complexity of the mould issue holds parallels to another contemporary subject, regarding lifestyle diseases. Lifestyle diseases have shown to be hard to classify as the complex patterns of disease holds many interacting parameters, including lifestyle and environment. This also makes the treatment a challenge. The information campaigns addressing the health risks of this group of diseases have not gained the desired effects. As a consequence, and contrary to the classical notion of disease-treatment, a huge effort is put on prevention strategies aiming at reducing these risks. However, the strategies and the understanding of a specific problem are determined by the available options (Jöhncke, et al., 2004). The possible solutions anticipate what is possible and what’s worth knowing about the problem. The process of framing the problem reflects certain social rationalities, the norms and conventions of the specific culture or society. As with mould, the lifestyle diseases have been framed as different problems with different solutions.

Kristensen (2004) explains the failure with the fact that people do not live as risk- and calculating individuals, and everyday decisions are not based on statistical evidence and security, as the professional understanding is. The professional and the experience- oriented perspectives represent two very different approaches to health and/or disease: as the risks of death or the possibilities of life. The campaigns have traditionally substantiated the *individualistic responsibility* for a healthy living using the motif of mortality. The notion of the individual in “Blaming the victim” has been problematic (Jensen, 2004), at worst, the citizen gets disempowered: ‘dismantling the individual's existential responsibility, choice and convenience’ (Kristensen, 2004). And in case of the mould issue the individual responsibilities have been manifold as they concern and strike both the human and the building.

The Ottawa Charter (WHO 1986), define health promotion as ”… the process of enabling people to gain control over, and improve, their health … an individual or group must be able to identify and to realize aspirations, to satisfy needs and to change or cope with the environment”. But in the prevention attempts the information remains *information* and is only to a limited extent acquired as knowledge. Transforming the information into knowledge and the knowledge into knowhow requires an active involvement of the individual (Kristensen, 2004).

# Discussion

The historical outline shows that mould has played different roles in different practices and that the classification as a health risk has changed its status dramatically. From being a sign of the ravages of time and an indicator for maintenance, to being the less ‘dangerous’ sibling of the wood decaying fungus, the transition to becoming an invisible, ever present health risk, represents different versions of the socially constructed phenomena. Despite the great political and scientific effort, the problem of mould is still by large perceived as a wicked problem. Head of the Danish Health Authorities at the time, commented on the problematic mould issue related to managing mould problems in one of the many social housing departments from the 60’ies (Ingeniøren, 1996):

“If experiments are to be made, it must be in accordance with the correct scientific premises…”

This ‘correct scientific premise’ has indeed been problematic as the different scientific schools of thought have had difficulties reaching a common understanding and still are affecting both professionals and laymen’s practices of everyday life. The information and guidelines communicates the underlying scientific understanding, either representing the construction- or the health perspective. The multiplicity is pin-pointed in an article about housing insurance. A defect-insurance will compensate if damp or mould made the real estate uninhabitable, however:

“… In these situations one consider whether the occupant get sick of living in the house, but the disease can be due to many things, and need to be assessed by doctors, microbiologists, building technicians and a lot of experts who do not at all agree, and it has nothing to do with building insurance…” (Ingeniøren, 2009)

In 2008 a workshop concerning the need for health counselling regarding the mould issue in housing environments, emphasised the challenges of quality-demands and threshold values (Center for forebyggelse, 2008). The workshop underlined a need for interdisciplinary collaboration, however held on to the argument that the building experts and technicians should focus on the buildings and the physicians focused on the guidance and treatment of patients. In the recommendation for health professionals (Sundhedsstyrelsen, 2009) the challenges of threshold values, is addressed as both due to species, concentration and extent of the mould.

Research in health prevention and promotion have recognised the different types of knowledge of everyday practices, and acknowledged the diverse ontological perspectives at play. A Health Authority Centre for Prevention has drafted a common terminology across different disciplines (Center for Forebyggelse, 2005). This work is based on an understanding that the terms in use are socially constructed and ever changing, emphasising the interdisciplinary and the inter-sectorial characteristics of Public Health. The terminology is targeted at the health authorities and thereby only partly the housing environment, however the mould issue call for a similar exercise of coordination, perhaps even more transverse, even inter-transverse, also including the professions of architects and planners.

The Health Authorities recently addressed the mould issue in schools in a handbook for Health Service in Schools (Poulsen, 2015). The handbook is part of a ‘prevention package’ among ten other launched in 2012, and address a wide approach coordinating the municipal policy, action plans of the local schools and education, involvement and management of the individual teachers and pupils. This coordination includes a translation of knowledge between the different organisational levels. Support, is a key concept, both in supporting the effort of practices of everyday routines and the division of responsibilities relating to the insoor environment, but also in the layout of the school supporting the good indoor environment.

## Concluding remarks

The preventive approach to the mould issue has somehow been short-sighted, acknowledging and withholding the problem; because the very issue of mould is a symptom of a range of other underlying problems. Ideally, acting at a distance should start from a relational understanding of the house as a technology or a system comprising the building, its users and the context where it’s situated. And the approach made regarding the schools is one way of doing this.

Like statistics or quantitative measure in a research environment, the classifications produce immutable mobiles, but in the ’real world’ these are challenged. First of all, reality is always in motion, it changes and transforms. Second, real life is always situated, relating to a time and place. Third, reality is filled with all kinds of classifications and classification systems, not necessarily in accordance with each other. Fourth, realities are populated with humans, things and other beings, all unpredictable and indeed mutually interdependent. The mould, made to be a scientific matter of fact, is in ‘the real world’, in the everyday life, a matter of concern.

Still, the different classifications and understandings of mould hold a huge impact on the practices of the everyday. In this ‘acting at a distance’ both the problem and the solutions to the problem, including the prevention of it, is affected by the positioning in norms and conventions. Hastrup (Hastrup, 2004) suggests for the strategies of prevention not to define the problems at stake by what’s possible, nor on the other hand try to define sickness and health as representations, but to consider the complementary, reflationary dimension between the different scientific schools of thought.

Prevention of mould should apply a cooperative approach, as it takes continuous effort, through the lifespan of a building. In this, promotion, support, prevention, regulation and treatment can be seen as different tools, representing different temporalities and scales.

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