

Conference Paper

**Power, status and authority and the affordances presented by the physical environment of a Dutch hospital department**

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**FIRST DRAFT. PLEASE DO NOT QUOTE**

## **Introduction**

When entering a hospital, a whole new world seems to open up to the accidental visitor. There are nurses running around with beds. There are doctors in white coats. Surgeons walk around, wearing surgical masks. Friendly women are sitting behind a desk. All of these actors are moving around in a complex choreography through an even more complex building. To the newcomer, a hospital could feel like a maze. However, the persons working in the hospital seem to know perfectly well where they are. They have developed their specific routines in moving through space and time in their hospital building. They know the affordances (Gibson, 1986) the different spaces and places provide and also how to handle them on a day-to-day basis.

The concept of affordance (Gibson [1979] 1986) in the vignette with which this paper starts relates to the opportunities for action a physical environment can present us with, in that it can enable people to perform in a certain way but, obviously, can also prove a hindrance. This concept will be quite central to the argument presented in this paper. We are going to pay attention to the impact of physical things on the day to day activities of the various participants who are taking part in the work processes of the neurological department of the

hospital we physically introduced in the above, a general hospital in one of the larger cities of The Netherlands. We shall not only look at the contribution these material actors (Latour 2005) make to the various routines that constitute its day to day negotiations. We have analysed these in an earlier paper as well (Verbaas 2011). The question we are particularly going to address is how the material actors that are brought to 'life' both by the building and by the stuff it presents, take part in the power relationships between the various parties that are literally in view on those locations where the primary care processes of this neurology department are being performed. What do these material actors add to (or subtract from) our insight into the power relations these various local parties represent?

### **Power, status and authority in a hospital**

If the subject is discussed in organization studies at all (Clegg 2009), the concept of power often basically concerns the relative impact on the organization's decision making processes, not to mention its day to day negotiations on the work floor, of specific (groups of) people. The variety of 'parties' and 'interests' that together constitute a given organization's power arena (Turner 1973) can be analysed in terms of the power effects that each of them is able to produce. Drawing on Göhler (2009) this does not only imply one's power over the various other parties that are locally available, it also implies one's power to (see Göhler 2009). The last mentioned notion specifically relates to one's proven capacity to 'achieve something' in a given situation. It can also be indicated as 'the autonomous empowerment of an individual or a group' (Göhler 2009: 34). A given party's (proven) incapacity to make a difference in either way, must also be included (Moss Kanter 1990).

If only because of the sheer number of power resources that can be available to any given party at any given situation (see also Morgan 1997), it must be said that power remains a rather elusive concept, most of the time. In fact one may even need to study the local relevance to a 'given' power structure, of some specific power resources as opposed to others to obtain some clarification (see also Fredrik Engelstad 2009). The same is true for the actors who have to be included when the local power relations-at-work are being observed. For instance, it may simply turn out to be insufficient to only focus on the (external) strategic battles of the organization's top, or on the internal decision making processes that are also performed, not to mention the internal relationship between management and work floor as the preferential locations where power relations are expressed (see for instance Morgan 1997, Moss Kanter 1990, and even Clegg 2009, who do). It may very well depend on a given organization's specific institutional context (Townley 2008) which power resources are relevant and also parties and processes prove important. The term institution here relates to a 'specific sphere of society' with 'an inherent logic of its own' (Townley 2008 95) with which an organization can be intrinsically connected.

A case in point is usually presented by the power impact that can be attributed to the presence of medical specialists in hospitals and, hence, to the associated professional logic (Cf Mintzberg 1984; Perrow 1984; Freidson 2001; Gastelaars 2009). Medical specialists are usually readily recognized as being 'in control' of their hospitals, at least to an extent, even if they are not expressly included in their organization's formal hierarchy or managerial structures. Accordingly, the local representatives of the 'hegemonic' medical discourse (Haugaard 2009) may very well provide us with an important focus for the analysis of a

hospital's power relations. As a consequence, those of us who try to analyse the power dynamics in and around a hospital will always find themselves confronted with the permanent power struggles between the hospital's (higher) management and its medical 'opponents' (see also Kruijthof 2005 and Witman 2007) not to mention the interminable struggles for professional jurisdiction between the various medical specialisms that can be available in any local hospital as well (Abbott 1989). But most of all, one is often also bound to find, that all of the other parties that are available in a hospital are somehow left out of the equation, whenever the power issues in and around hospitals are discussed (see for instance Witman 2007). If they are mentioned at all, they are habitually positioned as 'ancillary' to the representatives of the medical regime (Kruijthof 2010: 151)

For the purpose of this paper, however, we work the other way around. We will present data here on one single neurology department. This implies, first of all, that we are not focussing on the hospital as a whole however much it will present itself as the ultimate relevant context. Moreover, and as Kruijthof has observed in her extensive fieldwork study on the local impact of medical staff (2005), the local department level may even force us to observe how the medical staff is in fact related to nurses and supportive staff, and to other local actors (Kruijthof 2005: 150). The neurology department we observed, for instance, consists of a series of locations that are spread all over the building, and that sustain a distinctive range of activities-cum-actors that together perform a local version of 'neurology' as a discipline. The locations that have been observed during the fieldwork include the outpatients' clinic of the neurological department, its ward, the specialists' staff room, the ER, and a location where diagnostic practices and treatments are performed. The parties that are involved include, apart from various representatives of the medical staff and one operational manager who is also a nurse, the locally available nurses, secretaries, and other supportive staff, among them the 'care consultant' who supports those patients who are exiting the department, and the so-called 'patient service assistants'. And, obviously, there are the patients who are 'always there' as well.

As a consequence, the internal and external management that is performed in this hospital is put at a distance from the day to day negotiations we observe, and so are the internal and external power arenas it is concerned with. The same is true for those decision making processes that so often seem to provide the preferential locus to observe the day to day workings of an organizational power arena. The day to day struggles between the neurologists and the various other medical specialisms are put at a distance in our analysis as well. Instead, we treat the various outcomes of these 'distant negotiations' as local 'givens'. Even the local practices that constitute the master-pupil relationships that are so very characteristic for the internal medical socialization (see Witman 2007) are not central, either, to the observations on which we rely.

Instead, the fieldwork presented here was particularly focussed on the possible impact on the local day to day negotiations among the various parties that we presented in the above, of the physical environment provided by the hospital building and by those material objects that we shall include for the purpose of this paper (Latour 2005). Accordingly, we shall take the bodily presence of these various human actors as a starting point. Moreover, and for the purpose of this paper in particular, we are now interested in how the various categories of workers that can be discerned make use of these various available physical means, to (re)produce their differences in status and power. The fact that we were in the position that

we could observe the impact of this hospital's moving house, from two old buildings to one new one, may even present us with some surprising elements in this respect.

Being able to look at this moving house for instance provided us with an excellent opportunity to establish in real life, how many of the day to day working processes have essentially remained the same (Verbaas 2011). This time, however, we are basically interested in the impact of this move from place to place, and from physical setting to physical setting, on the power relationships and status differences between these various local groups, and on the 'given' authority of the hospital's medical regime, in particular. A physical workplace should not only be seen as a location to work, but also as a 'locus of identity' (Cutcher, 2009, 277). Accordingly, a moving house can affect the sense of mental ownership that can be related to a location as well (Spicer, 2009). We even assume, following Vischer (2005), that a new spatial order may lead to a new social order.

This change of the physical environment does not only affect the day to day work of the various service professionals, it can also 'create facilities and frustrations, depending on the affordances that are produced' (Cummings, 2008, 7). It can also affect the apparently self-evident differences in power, professional authority, and status. For instance, and drawing on Vischer's analysis of the concept of territoriality (2005: 28) we shall demonstrate in the following sections how the various parties that were mentioned in the above were not only presented, in the new building, with new spaces that were especially designed for their specific type of work; but that some of them were also quite busy to claim these areas as definitely their own and defend them against 'intruders'. And that, in doing so, they tried to re-establish themselves, with a 'rightful' claim to autonomy as a group.

### **Why buildings?**

Buildings, and hospital buildings in particular, have always been interesting in terms of the power relations they tend to confirm. Being as solid and durable as they are, they appear to create self-evident realities, by definition. In the well known terms (see also Dale and Burrell 2008) provided by the marxist situationist Lefebvre ([1974] 1991), a hospital building can for instance be designated as a so-called representational space, not only because of its sheer size that may 'make an impression' to any outside observer, but also, and more importantly, because it renders visible a 'more or less coherent system of non verbal symbols and signs' (Lefebvre [1974] 1991: 39) that tacitly announce to most of us 'the place where you are to go whenever you need medical treatment'. The fact that a building is somehow synonymous with the hospital as an institution, may even activate Lefebvre's notion of a conceived space (Lefebvre [1974] 1991: 39), which means that most of us seem to know what we are looking at, when we are looking at 'a hospital building'. This also means that 'we' may even be able to anticipate, at least to an extent, the 'multitude of differing yet related social spatial practices' (Dale and Burrell 2008: 7) that will be locally performed and that together constitute a hospital-in-use.

But, as we pointed out earlier, we are not going to look at the hospital as a whole. That is why, in our particular case, Lefebvre's notion of spatial practices may turn out to be much more appropriate for what we are going to describe. We are particularly going to focus on the power relations that are involved, although the basis of our observations may certainly be said to concern 'the production and reproduction (of) the particular locations and spatial

sets, characteristic of [a specific] social formation' (Lefebvre [1974] 1991: 33). And, again, we must point out that we are not going to focus on those decision making processes – both before and after its moving house - that were decisive for the actual distribution of these spaces (see Kruijthof 2005, 153) including the power struggles they amount to. Once again, we take the outcomes of these decision making processes as a given.

That is why we consider Lefebvre's concept of lived space (Lefebvre [1974] 1991: 40) even more important as a starting point for our analysis. Lefebvre combines it with the notion of lived practice (Lefebvre [1974] 1991: 223), to indicate the day to day localization of bodies and activities, in the spatially defined context that can be presented by a building-in-use and also by the material stuff that moves around it (Lefebvre [1974] 1991: 40). In this context one can also rely on Dale and Burrell's proposition, that specific roles and identities – they, themselves, speak of the 'habitus' (Dale and Burrell: 2008: 66) of certain groups of people, after Bourdieu - can not only be regarded as physical and embodied, by definition, but can also be described in spatial terms (Dale and Burrell 2008: XII). An example proves once again the habitus of medical specialists, which has been described extensively by Witman (2007) in terms of the specific type of in company socialization affecting doctors-to-be. This analysis could successfully be complemented with – although not replaced by - an indication of the associated range of movements of bodies and objects coordinated by a building in use.

But here, we announced it earlier, we are specifically going to focus on the observable movements in time and space of a number of other human actors, and on their interactions with IT-provisions, medical instruments and various elements of the hospital building. To summarize our present aim, we intend to present, here, (1) on the actual distribution of physical spaces the various groups we are interested in, are presented with, both in the old building and in the new. What is the impact of the actual distribution of space – including the affordances that the design of the buildings and of other objects presents (Norman 1988) – on the local status distribution and associated hierarchy of these various categories of workers? And, given the circumstance that hospitals can be seen as physically very dynamic organizations, we shall point out how these various groups' status seems to also be reflected by the degree to which they are 'allowed' to move.

A second theme that we will present (2), specifically draws on Vischer's notions of territoriality and environmental control (Vischer 2005: 4). With these notions she expressly relates the entitlement of specific individuals and groups (see also Göhler's description of the power to, in the above) both to the ownership of a territory and to the individual's possibility to effectively defend it against possible intruders. Relevant questions are: Who is effectively occupying this area? And who is allowed to enter someone else's space without an express invitation? Moreover, we shall also try to show that, although it seems to be very true that everyone in the hospital seems to move about a lot – see also our vignette presented in the above - some actors seem to move about much more freely than others. In this dynamic environment territoriality and status may very well have to do with one's physical realm of action, as well. Our findings on this point may even turn out to complement those produced by Ainsworth et al. (2011), in their hospital fieldwork. The non medical hospital middle managers they interviewed expressly considered their capacity to control the physical movements both of the human actors and of the things that were relevant to their department, as significant power resource (Ainsworth et al. 2011: 14 and 17). In tune with

this argument, it could also be suggested that some parties are much more able than others, to avoid such external territorial control.

Another concept we are definitely going to put to use concerns the concept of affordance (Gibson [1979] 1986). This concept stems from cognitive psychology and points at the action possibilities that can – tacitly – be provided by a given physical environment. And, as we suggested earlier, these affordances can even be anticipated in a new building's design (see Norman 1988). In this third part of our analysis, however (3) we shall particularly rely on their more tacit versions (see Gibson ([1979] 1986) and discuss how specific physical locations and also some non-human actors that are specifically relevant, there, will affect 'information' as a very important power resources (Moss Kanter 1990). In hospital, in particular, we are not only looking at a very specific kind of embodied practice but, given the current complexity of most diagnostic activities in the medical realm, not to mention the acute relevance of the permanent monitoring of patients, we think that in hospitals the day to day handling of information is very important indeed. Moreover, and like elsewhere, it has become even more visible in our days, due to the omnipresent impact of IT (Nonaka and Takuchi 1995).

Two subthemes are particularly relevant. The introduction of IT has made us ever more aware of the organizational relevance of (electronic) data management, in hospitals like elsewhere. In our case this is for instance symbolized by the permanent availability in most of the processes we observed, of a Computer on Wheels which is affectionately called the COW. This puts a number of quite well known information management issues on the agenda. But this data management involves human actors as well. So to us the relevant questions are: Who is to collect the data that are relevant to the treatment of a specific patient? Who is expected to load them onto the computer? Who is allowed to retrieve these various data? Who can put them to practical use? In our context for instance we may be particularly encouraged to pay attention to the physical and face to face monitoring performed by the nurses that are present. As Kruijthof observed, the actual positioning on the work floor of nurses depends at least to some extent on their being 'the eyes' and 'the ears' to the medical specialists they work with (see Kruijthof 2005). Who is there to provide the data that the system and its masters need?

Our second theme is much more focused on the physical processes that can be associated directly with the actual impact of the so-called knowledge-in-use (Schön 1983). Here, we specifically relate to the day-to-day negotiations that are particularly relevant, here, not only to make sense of the available data but also to take immediate action, should a patient's condition require this. We have not only been looking at the actual negotiations themselves (e.g., who informs whom), we have also looked at the locations that are chosen by the various parties that are involved, to accommodate the relevant negotiations. We have for instance been able to observe how these essentially informal processes are sometimes quite un-hierarchical in the composition of the associated groups. As we have seen in a contribution by Iedema et al (2010) so-called liminal spaces – an undefined part of a semi-public hall - may prove very important in this particular context (Turner 1957), whenever 'herrschaftsfrei' negotiations between people of unequal in rank are required (Iedema et al 2010: 44 and 51). Moreover, there may be issues of privacy involved here as well.

One caveat however should be put in place. As Lefebvre points out, any order(ing) that may be found, even if, at face value, it may seem to be quite self-evident in itself, 'cannot be taken for granted' (Lefebvre [1974] 1991: 40). First of all, we should realize that many effects

of the visible environment are essentially of a tacit nature and that, accordingly we may miss out on them as well. But, second, we should also assume that they are also quite unpredictable by nature. In fact it may even be very appropriate, indeed, to warn against such straightforward assumptions as Kruijthof made, that, in the hospitals where she observed, any given space can turn into quite an obstacle to its day to day occupants, simply because it seems to expressly have been designed for one single purpose (Kruijthof 2005: 154). According to us, this unpredictability may in fact turn out to be quite inevitable, indeed....

### **A local neurology department**

The hospital with the neurology department we present about is not a teaching hospital, although some doctors-to-be are working there. This medium sized general hospital used to consist of two buildings but moved into one during the period of research. This move was the last in a series of events leading to the merger of the two original hospitals into one. Before the move, there had been a change of name and also of the hospitals corporate identity; a renewal of some of the job positions had taken place as well.

As we announced earlier, there is a number of locations relevant to the neurology department that has been observed. First, there is the outpatient clinic where the neurologist sees patients who, as a rule, have been referred to the hospital by their General Practitioners, although some of them may arrive through the ER. After the first consultation in the outpatient clinic, some of the patients may need further medical examination. Then they are to pay a visit to the department of clinical neurophysiology that is also considered part of the neurology department. Another stream of patients, however, is directly guided towards the ward where they can be observed for a number of days, in order to perform a proper diagnosis. Some of the ward patients' stays on the ward can be planned; most of these patients, however, are acute. Among them are for instance patients with a CVA, but brain tumours are also quite common. But even then, most of these patients are not on the ward to obtain a treatment that may eventually cure them; they are mostly there for diagnostic purposes or to stabilize their condition to prepare them for diagnostic work.

Accordingly, neurology is quite different from other medical specialisms in a number of respects. First, it is a so-called consultative specialism. As Kruijthof has pointed out, this type of specialists is much more into the 'thinking and deliberation' that comes with a specific emphasis on diagnostic reasoning (see Kruijthof 2005). Another distinctive trait involves that, as opposed to for instance the surgeons in similar hospitals, these specialists are not too preoccupied with the permanent 'occupation' of their facilities and, accordingly, with logistics and patient streams (Kruijthof 2005). Third, most of the patients have a condition that may very well turn out to be chronic. Although they may return quite often to this same hospital department, they are not really expected to get better; their actual treatment is often limited to medication and other interventions that aim at 'easing' their condition. Another observation that can be made in this context is that the work on this ward seems to be comparatively un- hectic; apart from the occasional insult, there are not to many acute situations to be observed.

And, finally, most patients in the ward are far from mobile. They need help in everything they want to do during the day. The nurses have to make use of quite a few apparatuses, such as

wheelchairs, lifts around the beds, and the inevitable potty chairs while doing their work, accordingly. In comparison with this, the medical specialists' own diagnostic tools prove surprisingly unimpressive: neurologists only seem to make use of a small torch to observe the reaction to light in their patients' eyes, and a hammer to test their reflexes. Accordingly, the general outlook of the department proves far from high tech.

## **Fieldwork methods**

This single case study provides us with the opportunity to have a 'intense focus on a single phenomenon within its real-life context' (Yin, 1991, 1211). Furthermore, an interpretive method allows us to explore the impact of the built environment - and of the various material actors provided by it - with a specific focus on 'the meanings these spaces and other objects hold for those passing through and/or using them' (Van Marrewijk en Yanow, 2010, 7). The fieldwork was initially performed by one of us (see also Verbaas 2011). The data was collected during two periods: before the move to the new building and afterwards. The date on which the hospital moved house was may 16, 2011. The first fieldwork episodes was Januari-March 2011, the second May - June 2011. The second period was somewhat shorter than the first.

Different types of data collection were used. They included both observations and interviews. According to Vincent and Wears (2002), this is important for hospital fieldwork in particular, among other things because 'the fluidity and complexity of the clinical environment [...] require studies in which interviews and verbal protocols are combined with observation' (Vincent en Wears, 2002, 410). Moreover, the data collection mostly relied on data produced by the senses, and less on the spoken word.

However, the fieldworker tried to make the observed practices more explicit, by asking about her observations in interviews that were conducted in connection with the observations (Van der Haar, 2007, 34). During the observations, the fieldworker also tried to listen to spoken text in situ and make notes of it. This meant that she was allowed to observe natural conversations and spoken text, which could be related directly to the actual physical context where it was produced. In healthcare this 'running commentary' is considered even more important than in other sectors, because the spoken word is often directly related to the actual day to day work (McDonald, 2005, 457).

During the fieldwork, all types of actors were followed both before and after the move to the new building. In both cases, shadowing (McDonald, 2005) the different actors in the department for several days gave insight in their day to day practices. According to McDonald, '[this method] can produce the sort of first-hand, detailed data that gives the organizational researcher access to both the trivial or mundane and the difficult to articulate' (McDonald, 2005, 457). In some cases the fieldworker was asked to step in (and turn into a participant observer, as it were): e.g., to walk to the printer to collect papers for the doctor, to prepare and serve bread to the patient; assist a nurse to get a patient dressed. But, generally speaking the observations were non participant.

The actors particularly provided the fieldworker with a lot of information while being shadowed during the often quite long walks through the building from one location to another. These walks could therefore been seen as walking interviews, a type of interviewing



which is not widely known, although 'it has great potential to shed light on how participants use and understand different spaces' (Jones e.a., 2008, 8). More static observations were performed as well. For instance while the fieldworker was waiting for an appointment. There were many other moments during which she could observe the actors from the sideline when they were talking with each other. Although sensitive and confidential information was exchanged in these conversations, the presence of an outsider was not really observed. Small talk also provided valuable data on the way the various actors experienced their work, their environment and their colleagues.

27 semi-structured interviews were performed during the two fieldwork episodes: with medical specialists, junior specialists, medical students, nurses, management, secretaries, patient service personnel and the care consultant; both before and after the move to the new building. The interview topics included the checking of the observations made, the move to the new building and the ways in which the actors experienced these buildings. The fact that a physical environment is often only experienced in a tacit manner, made talking about it in concrete terms quite difficult, indeed (Krein, 2010, 202). Naming concrete spaces in the building and encouraging the respondents with 'physically oriented' terms such as 'quiet' or 'light', proved helpful.

Using visual aids is 'most useful when observing spaces, places, the environment and objects' (Boeije, 2010, 66). The fieldworker took photos both in the old and the new building for several purposes. First, as a memory support for the researcher herself and as a visual aid to the potential readers of her report. Second, they were made use of in the interviews, in a method named 'photo-elicitation' by Clark-Ibáñez (2004). Third, pictures were taken of those places and spaces the actors named as important, themselves. They were particularly useful during the interviews after the moving house, as they encouraged the respondents to tell their own stories with these pictures as a guidance (Clark-Ibáñez, 2004; Warren, 2002).

All data were analysed using Maxqda. In this paper, all types of data are combined in the following section about results.

### **Data presentation (1)** The different parties in de neurology department and their spaces and places

As mentioned above, there are different parties available on the neurology department who all work in the hospital in different places. The first party present concerns the medical staff. It consists of medical specialists, junior medical specialists (medical specialists-to-be) and medical students. As it turns out, the medical specialists mainly work in the outpatient clinic and in the neurological diagnostic centre. In the old outpatient clinic each one of them was allotted a 'personalized' consulting room, there were nine of such rooms available. In the new building they were to share the five consulting rooms that were available there. The medical specialists are sometimes present in the emergency department, as well. As a rule, there is only one medical specialist present at the ward.

As we have seen, most neurological conditions are chronic, it is often not possible to cure the patient; they are often provided with medicine and physical support. Getting the right diagnosis is therefore essential to these specialists' work. The medical specialists are the ones who are responsible for a patient in the end. As a consequence they may have to show

up on all the locations relevant to neurology but provide 'inter-clinical consultancy' as well. They seem to be permanently on the move. The moving house even provided them with a new starting point for their movements: a new medical specialists' office, a very large open office that houses all specialisms that are present in this hospital. It locates the neurologists next to the cardiologists, but it increases their distance from the various places where they perform their daily work..

The junior medical specialists are responsible for the patients on the wards. They take on the medical students into their daily routines. They see their clinical patients every day to check their health status and initiate complementary diagnostic tests, mainly to achieve a diagnosis. During these visits, they conduct small health checks like the opening of the eye or the reaction to different stimuli. Also, they decide together with the supervisor about the next steps in an individual patient's care path: stay in the hospital to get a diagnosis, go home or go to another institution for care. Generally speaking, they can be observed to ask their senior's permission whenever they want to decide upon a patient's diagnosis, treatment, or discharge, whereas they can also be observed to instruct both the medical students and the nurses in the ward.

In the old building the ward consisted of nine rooms, with 26 beds altogether, including three rooms with one single bed; the new building provided for 32 beds in 20 rooms, there were 16 single bedrooms available. These spaces provide the main working area both to the nurses and the junior medical specialists. The junior medical specialist share one room on the ward, both in the old building and in the new. The medical students follow the junior medical specialists around.

On the ward, there is also another important group of actors in view: the nurses. They are the ones who provide patient care and can be observed washing them, giving medicine, and taking care of their condition. In this day to day care for the patients, the nurses are the ones who appear to be in charge. Accordingly, they can be observed to order the patient service personal about, to perform tasks like cleaning a bed or helping an individual patient. However, they are also expected to register a number of data in the electronic patient files, to inform the junior medical specialists and the medical specialists about the patients' vital parameters, on a day to day basis. That appears to be their specific contribution to the 'cure aspect' of the daily hospital work on the wards. The ward appears to be their effective working territory, both in the old building and in the new. They work from a nursing station, which is located very visibly near the hallway; in both buildings they repair to the room that has been allocated to the nurses' trainer, to have their coffee breaks.

The patient service personnel are present in the ward. They take care of the food and drinks of the patients. In this respect, the patients may even depend on them for their day to day survival. Besides, they make sure the beds are clean and perform other non-care tasks as well. For instance, any patient can get a newspaper every morning. In the old building this patient service personnel had been provided with a small pantry that is located on the ward; in the new building this pantry has been located in another part of the hospital, and at some distance from the ward, accordingly. This patient service personnel essentially performs supportive tasks and, accordingly, does not seem to be very prominent in the department's hierarchy. They present themselves in the interviews as people whose complaints or brilliant ideas are never heard..

The care consultant accommodates the patients' exit from the hospital, after the diagnosis has been confirmed or after treatment. She is for instance expected to find another institution for them where they can revalidate; she also helps the patients to start living live with their new (often poor) health condition. The care consultant has an office of her own on the ward, both in the old building and in the new; she is the only functionary available of this type available and needs a space to perform private conversations with the patients and their relatives. She is specifically connected with the patients' future outside the hospital and, through this, with several external institutions. From the ward perspective she plays a solitary part.

The ward manager is a nurse by origin: she always wears an uniform. However, she spends most of her days with planning, and with instructing nurses-to-be, and – at the moment of the fieldwork – with the planning and facilitation of the move to the new building. She is in charge of the daily work processes both of the nurses and the patient service personnel, as well. She does not have any responsibilities where the medical specialists or even the junior medical specialists are concerned. In the old building she had an office on the ward which used to be a coffee room for the nurses. In the new building she has an office of her own.

Last but not least, there are secretaries present on both the ward and on the outpatient clinics. The secretaries on the ward are located in a front office where the patients come in. In the new building they were expected to remain standing all day (but got hold of high stools themselves, to prevent this); here, the nursing station is located directly behind them. They are particularly there to manage the stream of information between nurses and medical staff, both 'by hand' and through the electronic system. We shall return to this point later. Also, they make appointments with the diagnostic centre for patients who are on the ward, orders taxis and ambulances for transportation. And, finally, they plan the various patients' rooms and beds. The secretary in the outpatient clinic is located in the front office where the patients come. She plans the appointments for the patients in the outpatient clinic. She also makes appointments with the diagnostic centre. She also appears to be there to take care of the medical specialists who work there: bringing coffee, making sure they wear a clean jacket etc.

As can be seen in the above, the allotment of the various places and spaces to various kinds of personnel remains largely the same after the moving house of the hospital. Moreover, their hierarchical ordering remains the same as well, and appears not too surprising, although the move to the new building allowed us to get a more transparent picture of what this hierarchical ordering is about. In the next section we shall flesh out some other aspects that are related to this. There we will report on the power differences from two different angles. First, there is the topic of territory. Second, we pay attention to the role of information as a power resource in this department. And again, we shall focus on the relative status of these various groups of personnel.

### **Data presentation (2): Territoriality or the enactment of differences in status and power**

The fact that medical specialists appear to occupy the highest status in the hospital, can also be observed through the ways they are allowed to make use of the various spaces. In the old outpatient clinic the medical specialists all occupied a room of their own, where they also could also store their books and other personal stuff. In the new building they were to share

these consulting rooms with their professional peers, and, accordingly, these rooms were 'depersonalized' as a consequence, although they remained a 'privileged space' for these medical specialist. In the old building they were even allowed to have a personalized territory of their own (see also Vischer, 2005).

In the new building, the medical specialists did no longer have an office of their own in the outpatient clinic. Instead, they had to share a limited number of consulting rooms. For their administrative work, they now are to go the open specialists' office we described earlier. These changes meant a lot to these medical specialists. Their feelings ranged from 'where can I go in the morning and where can I hang my jacket' to 'I am not able to work in this kind of setting, I completely understand why we have to work like this, but I do not know how to deal with it'. Their medical specialists' authority might even appear to be somewhat tarnished through the circumstance that this new spatial arrangement forces them to carry boxes around, which are stored in the secretary's room and but which contain among other things their indispensable diagnostic tools, the little torches and the hammers we mentioned earlier. This is not only experienced by them as a rather awkward situation, it may also imply a loss of face.

When asked about their comments on the new building, two of them answer: 'it is nice, though as you can see I do no longer have my own consultation room'. Others particularly relate to these little boxes. One of them: 'I constantly walk around with that box and I often forget to collect it at the secretary's office'. Also, they have to get used to share their rooms: 'everyone marks his territory by leaving some stuff lying about'. And, not too surprisingly after these remarks, it could also be observed how the neurologists did the same in the new open office spaces they were to share with all other medical specialisms in the hospital. They marked their 'neurology' territory by placing sculptures of a human backbone and brains on the bookcases that separated their desks from those of these 'others'; the other specialisms did the same.

We have also been able to observe, how all medical specialists are free to switch between different territories in the hospital. They can go wherever they want to go in the building, without anyone asking questions about their presence. They may even consider the whole hospital as their working territory. They enact most of their daily work process in the outpatient clinic with its specialized consulting rooms. During lunch, they are always to be found in on the same table in the restaurant. Only one of them is always present on the ward in the early mornings and late afternoon, to perform supervision. Apart from this, they can definitely be observed to go wherever they want to go,

Even more striking is that these medical specialists can also be observed to walk into someone else's room, for instance the secretary's office or the nursing post, whenever they deem it necessary. They can even be observed to start talking to the persons present inside these rooms, even if these people are busy and do not respond immediately. It seems like the medical specialists are always able to step into someone else's territory, and apparently without being seen as transgressing. Even if those other actors do try to lock the medical specialist out, the medical specialists always go in. This confirms the higher status of the medical specialists as opposed to the lower status of the other parties present.

The new building even provides us with a rather unexpected physical change which establishes once again, how, as a rule, these medical specialists' positioning is territorially

framed. The new neurological diagnostic centre is located at some distance from the rest of the department. This induces some of these specialists to feel 'distanced' from whatever is happening on the work floor. But, second, there is no secretary available there, as well. As a consequence, the medical specialists feel forced to check on their patients themselves, instead of having their secretary do this. And, third, and deemed even more important by these specialists, themselves: due to some unforeseen technical obstacles, they cannot communicate directly by internet or telephone, with relevant others outside this location. This really makes them feel abandoned in this distant corner of the hospital. They really seem to rely on all of these people's support.

As we have seen, the junior medical specialists have a room of their own on the ward although, unlike their senior colleagues, they have to share it. The door of this room is often open, which is why the head nurse, in particular, seems to feel free to walk in. When the door is closed, however, no-one dares to walk in, at least not without knocking and asking for permission. In their turn the junior medical specialists are able to walk around freely on the ward, and, like their seniors, walk in where-ever they want to. They often make use of the secretary's office to talk with the nurses, but an otherwise unoccupied medicine room can serve this purpose as well, both in the old building and in the new. In the old building the pantry also performed this function, as a rule, in spite of the patients service assistants being present. Together, these various spatial routines seem to properly mark these junior specialists' position as just below that of the senior specialists, but – in their absence - with a very distinctive medical responsibility of their own.

So, not too surprising, in the new building, the junior medical specialists were once again allotted a room for themselves, and this room was even bigger than the old one. This is something the nurses knew very well. More than once during the field work, they talked about the fact that "they have a huge room for themselves, they do". And, surprisingly or not, within weeks after the moving house this big room was occupied by the nurses, who wanted to use it for their start of the day meeting. In a rather unexpected way, this move did seem to mark the junior medical specialists' rather fragile positioning vis á vis the local nurses. In any case they did not succeed in marking their own territory as sacrosanct.

Another insight was provided by the positioning of this room in a rather distant corner of the ward. This circumstance proved quite illustrative of the precise nature of the daily responsibilities of these junior medical specialists. It seems that, due to this distant location, they appeared to be much less within reach, for relevant others in need of specific information. In the new building it turned out that, as a consequence, they were continuously approached by different parties in need of all kinds of information, from the moment they walk into the hallway. Their new location on the ward does not afford sufficient propinquity (Fayard and Weeks, 2008) in itself, for nurses and other parties to meet them and ask their questions. This confirms that, medically speaking, they remain the brain of the ward.

At first sight, the nurses seem to be the only party in the department without a specific place they can call a territory of their own. However, they seem to recognize the whole ward as their place in the hospital, as it obviously marks the working area where they perform. This relatedness to the ward as their working territory is also confirmed by the fact that, unlike the medical specialists and the medical specialists-to-be, these local nurses seem to only leave the ward, when this movement can be justified by their special knowledge. For instance

when a patient with a risk of insults needs to be transferred from one location in the hospital to another, in his bed. Otherwise they almost never leave this domain.

One exception to this rule, however, is provided by the so-called coffee break where a privacy issue seems to be involved, but also one of 'respect' for the obvious indispensability of this profession. For instance some of the nurses mentioned the lack of having a place of their own, where they would be able to say and do whatever they liked, without being seen or overheard by others. And although, at first sight, this issue mainly seemed presented by them as a rather straightforward way to announce that the hospital's board of directors did not care for its people at all, there was much more behind it. As a matter of fact, the nurses did claim a small room in the old hospital building for the coffee breaks they were entitled to, as a part of their work day. They also used this place to talk over work issues and to work on their administration. And when the room that was originally meant to be their place to spend these breaks was taken up as an office by the local ward manager, they moved to another place with the same purpose. This was the office of the teaching nurse we mentioned earlier. This situation seems to be repeated in the new setting as well.

"The first weeks in the new building, the nurses in the ward were searching for a place to spend their coffee breaks. They felt a bit displaced without Esthers' room to spend their time. In the end, it was the ward manager who brought this situation to an ending. She decided to place a tray with coffee cups, milk, sugar and a box with cookies in one of the closed-off office spaces in the ward. Immediately, this was accepted by the nurses as their new location to have their coffee break. They told me that they felt that the ward had become much more 'their place' after this event." (field notes)

This fragment of the observations available to us, makes visible that the ward is not only a location to work, but also a locus of identity (Cutcher, 2009, 277) for the nurses. They are looking for material objects, that mark a space as their place, and they also look for someone who confirms this. The new ward may very well be the designated work area, once again, with which these nurses feel strongly connected, by definition. They do not feel that they also belong there, themselves until they can spend their coffee breaks together in a dedicated room.

The secretaries also have a place of their own in the ward. In the old situation, they have a workplace with a computer, telephone and a window which can be opened to speak to persons in the hallway. In the new hospital, their office is directly connected with the nursing post. The secretaries work there all day long, although they have a nine to five job, as opposed to the medical specialists and the nurses. Moreover, they can often be observed while they are moving around the ward, to visit patients or junior medical specialists to ask for extra information. Accordingly they can be seen as a spider in the information web that holds together both the ward and the department. They often also connect it with the outside world.

In the new building the secretaries' office also serves, together with the nursing post, as the ultimate place in the building where the parties involved with direct patient care come together to talk and share information. The secretaries seem to always know what is going on. Moreover, this central location of the secretaries' office on the ward confirms her position as a nodal point between all parties. In the new building, their desk is even more visible as central in the ward.

“In the nursing station and the secretaries’ office that is directly connected to it people walk in and out to ask questions. The secretary herself also walks around to for instance query the nurses. Her work is concentrated in one place ,but she has to walk around to meet others and be able to ask questions. It is striking that she does never call the nurses, but is always looking for face-to-face contact, instead.” (field notes)

As we have seen, the care consultant also has a room of her own on the ward. But this does not seem to amount to much, in terms of this functionary’s professional status. A different story can be told, however, about the patient service personnel that used to work in a small pantry on the ward, at least in the old building. This is the place where they prepare the bread car, do dishes and make coffee and tea for the patients. First of all, they definitely present this small kitchen as their private domain, themselves, where they can talk about their private lives or else gossip about their colleagues. In the old building this pantry was also the place where other parties walked in for small talk or quick meetings about patients. Everyone even appeared to walk in and out of the kitchen, without paying special attention to the patient service personnel. And, unlike some other parties to whom this happened all the time, this service personnel did not object to this situation. It certainly provided them with a feeling of belonging to the others in the ward, and they found it quite satisfactory to be in the know of important things, although they themselves were quite aware that they were not to be informed this way, at all.

One of them: ‘All kinds of people walk in here, there is often cake and I hear a lot of stories from all kinds of perspectives. Sometimes it is fun, sometimes it is not and there are often stories about patients which is officially not allowed in the kitchen. However, also the medical specialist walk in here.’ (MPS1). They also tell that this is a place where one is able to “speak about certain things, without bothering anyone”. Not too surprisingly, they particularly commented on the loss of these affordances, when the new building moved them with their pantry off the ward.

In the old building, the ward manager had taken her position and territory in what was meant to be the nurses’ coffee room in the old building. It is a place she occupied more than that it was given to her. And, having to occupy the space of someone else does imply that a team manager of this kind cannot be expected to have much status. The fact that she was allotted a room of her own in the new building, may not have changed much in this respect.

### **Data presentation (3) information work**

Information work is essential to the daily work in the neurology department, which may not come as a surprise in an environment where the parties are busy collecting, sharing, stocking and interpreting information about the patients, both to inform and justify their diagnoses and medical prognoses. The permanent monitoring of the patients’ condition requires a lot of information management as well. But, to our point of view information also amounts to a very important resource of power and status alike. Here, we are going to deal with these issues along the following lines, which are both related to the impact of the built environment and of material things: The first has to do with information management as such, although in our specific case this must expressly include the impact of human actors such as nurses. The other has to do with information-in-use, and specifically relates to the

various places and spaces in the building where informal negotiations are performed, and also with the inclusion and exclusion processes that may be involved.

As far as the information management is concerned, the nurses' activities are extremely important. They are, together with the junior medical specialists, the main source of information about the patients both for the medical specialist and for other parties as well. Apart from their essential responsibilities associated with the 24/7 care provided to the patients on the ward, this information role may very well provide them with an even more strongly felt responsibility. They are to measure the different parameters about the condition of the patients and make sure the data is uploaded in the electronic patient file. The physical environment plays a role in this, as well, as the information must also be transferred to the electronic file on the computer on wheel / the COW we mentioned earlier. Also, collecting the right information is a very physical activity indeed. The nurses use different kinds of apparatus to do this, but they also rely on their eyes, nose and ears as important instruments.

All of this gives the nurses the power of being an indispensable source of information. Our observations on this point are in line with Kruijthof's (2005) observation that the nurses are not only the hands, but also, and in this case mainly, the ears and eyes of the medical specialists. Even the nose is an important tool in recognizing the health condition of the patient. One of the nurses even claimed that she can often "smell the health condition and the kind of ailment from a distance". This information aspect also plays an important role when a patient in a bed has to go to another department or the operating theatre. As we have seen, this provides nurses with one of the rare moments that they get out of the ward and move to different parts of the building: their knowledge about the patient turns them into an valuable asset whenever the transportation of a complicated patient is due.

However, it also turned out that in the new building the collecting of data about the patients became more difficult for the nurses. The patients are now in single bedrooms instead of the four or five persons to a room the old building presented. This makes it more difficult to observe the health condition of more than one patient at one single glance, a capacity they were used to. Also, the heavy doors in the new building are always closed, which proves a physical constraint to the nurses' use of their ears and nose during their daily work.

The secretaries in the outpatient clinic and in the ward are also important keepers of information. In the outpatient clinic, the secretary makes sure that the information the patient brings hard-copy, is also loaded onto the electronic system of the medical specialists. Also, they make sure the information from the medical specialists finds its way to other specialists and departments in the hospital. Moreover, this same secretary in the outpatient clinic, is also responsible for rendering all of the information electronically accessible to relevant others. Like her colleagues on the ward, she aims at collecting a complete set of information that covers all needs concerning each single patient who is present. The medical specialists for instance can consult their secretaries about their patients' General Practitioners and about their families as well.

So, even if the medical specialists and junior medical specialists are the only parties who know how to interpret the information about the patient and use it as well, the secretaries and the nurses play a very important role in collecting and keeping this information in the right places and getting it at the right moment in the right place as well. Moreover, they do not only



make use of the digital file, but also of hard copy paper, telephone messages and so on. Even the spoken word can serve as a source, here.

Our next step, however, focuses on how information is put to use. Then we are forced to observe that sharing and using information amount to activities that are closely connected with each other and that do not coincide with information management described in the above. Moreover, and particularly during our fieldwork, we saw the importance of privacy when it comes to sharing, and also of the inclusion and exclusion of parties who are important in the field. We are also confronted with some rather unexpected roles played by the built environment. For instance, in the old building, some of the office rooms along the hallway were often used for the sharing of information, in the new ward it is the walls without windows that seem to present the preferential locations to people who wish to discuss some issues relevant to individual patient treatment. They also seem to give an impression of privacy, although this is not always true.

In the outpatient clinic, most work is performed individually by the medical specialist, and so is the information work involved with the decision making concerning individual patients. However, these medical specialists sometimes ask their secretary to do something for them. Most information about these tasks is sent to them through the electronic infrastructure, but, particularly when difficult assignments are at stake, the medical specialists walk to the secretary to confirm their request in person. Then face to face contacts support the IT supported infrastructure, and together they support the arrangements providing care.

On the wards, it is the morning visit that provides the ultimate moment in which as much information as possible is shared between a number of parties that are present at the time. Together, the nurse and the medical specialists and specialists-to-be move from patient to patient to check their health condition. During the visit, everyone has a clear position in this professional field, and so do the material objects that are carried or pushed around during these visits. The nurse pushes the Computer on Wheels and stands at some distance from the patient's bed. The junior medical specialist carries a laptop on a cart, and stands closer to the patient. The medical specialist is closest to the bed and only carries the small tools signifying his specialist profession, the small torch and the hammer mentioned earlier. The medical specialist asks the questions during the visit, and the nurse provides most of the answers. She also types new information into the electronic file. The patient can provide answers as well.

“Special details are directly transferred to the electronic file, making use of the Computer on Wheels. De nurse is asking questions about the treatment of the patient and about points of attention about their care, and mostly expects the junior medical specialists to answer. In their turn, the medical specialists ask about outcomes of medical tests and the patient's general condition. This information is looked up in the dossier by the nurse, who again makes use of the Computer on Wheels. Meanwhile, and also making use of this information, the medical specialist is having his conversation with the patient”. (observation notes)

After the visit, the collective of professionals discusses the condition of the patient, but this is supposed to happen outside the patient's earshot. They do so in the hallway or, whenever the information is more delicate, in one of the closed office rooms or a medicine room nearby the hallway. In the new situation it is often a wall without windows which is chosen as the preferential location.

After the meeting the information is spread further, and once again on different locations.

“After the visit, the head nurse informs the rest of the nursing team about the information and tasks coming forth. Sometimes the nursing station or the medicine room is chosen as the place to do this, sometimes time is considered more important than privacy and the hallway is chosen as a décor. Not everyone is comfortable with this choice and some think such a meeting may never be in the hallway, because “ patients are also in the hallway and this is not very polite, we have to look for a place with more privacy”. (observation notes)

Apart from these visits, however, information is shared all day on this department. The hallway is a favourite location to exchange small questions and answers between nurses and between nurses and junior medical specialists. The more private the information, the more privacy is looked for, to avoid that the information reaches people who are not to be in the know. In the old building, the pantry was for instance a place to share such delicate information, although this provided the service personnel that was working there with lot of information that was not meant for their ears. Another example of a party that should not be in the know but that was nevertheless informed, is presented by the care consultant in the old building. She knew everything about the junior medical specialists, anyway, because she shared a smoke with them on the balcony. This even may have generated the trusting relationship that is relevant for the fact that the junior specialists regularly used her place, as well, to talk over some of their more complicated issues. Her room was conveniently located for this purpose, directly opposite the junior medical specialist’s room. And again, it may very well be true that getting access to all this information may provide some people with a feeling of relevance and involvement, that does not fit in with their actual status in the hospital at all.

In the new situation, it is the walls without windows which afford the favourite place to share this kind of information. Although this seems to be a place where patients and their family cannot overhear the information, it often proves quite easy to understand what is being said by these actors. So in a way, their concern with privacy may very well turn out to be ‘false’, once again.

## **Conclusion**

In this paper, we showed the nuance the physical environment can provide to existing power and status relations in a hospital. The physical environment is able to strengthen, weaken and change these given relationships in the day to day practice.

We organized our presentation according to two important domains that turned out to be quite relevant, indeed, to our concern with the relatedness of the physical environment to issues concerns of power and status: the first concerns the concept of territory, both in the sense of ownership and in the sense of territorial movements; the second one concerns the local relevance and also the relevance to power issues of information work, both in the sense of information management and in the sense of information-in-use. It supported tools play an important part in this context as well.

The physical environment of the neurology department does have an impact on the way the power, status and authority relations are performed in the day-to-day setting we have observed. They may not seem too surprising to the reader, after all, but the impact of the

physical environment on these differences of status and power between a number of parties involved with this neurology department, may nevertheless deserve our attention.

It is not surprising to most readers, we are sure, that the medical specialists prominence in this neurology department is definitely affirmed throughout our data presentation. The senior is senior in a number of ways, the junior neurologist obviously has to prove him or herself at the level of the ward before reaching that elevated status. The medical students are invisible, but always there. The hegemonic medical regime has proven its prominence, once again, although the medical specialists have suffered some losses in the new hospital building arrangement this hospital provides. At least they lost their individual ownership of the consulting rooms in their outpatient department. Maybe, this loss was compensated by their physical – and hence visible – incorporation into one unified medical staff covering all of the specialisms the hospital has on offer – through a ‘distant’ open office the new building presents.

Although the nurses of this ward prove to be much more present, physically, at first sight, it appears to be much more difficult, both theoretically and observation-wise, to physically enhance the relevance of their indispensability, both as care providers and as the obvious source of most day to day patient information. The most striking territorial claims they present concern their efforts to create a ‘home away from home’. The various supporting services that are in view, among them even the operational manager, cannot claim the ‘exclusive’ ownerships of any of the rooms they occupy, either. Again, and at first sight, their rooms may appear to be ‘appropriated’ on the basis of their specific tasks. But in practice they seem to be accessible to all.

Last but not least, there is the patient, who is always present in the hospital although our contribution proves, once again, how a whole paper can be written about the day to day negotiations in a hospital without ever mentioning this indispensable actor. To our opinion this absent presence of the patient can even be symbolized in a physical way, by the heavy doors of the single bedrooms this hospital’s new ward provides to its very contemporary patients. These doors are so heavy, that a patient – a neurology patient in particular - is usually not able to move it singlehandedly, at all. Accordingly the patient will be confined to her very private room with no one to talk to. And even a patient who is having epileptic insult, and who is trying to draw the nurses’ attention, will find that the nurses will not be able to hear her. So far the impact, both on the empowerment and the disempowerment of this specific group, of such physical objects as heavy doors.

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