Communal Spaces in Housing for Elderly People

ABSTRACT

When new housing for the elderly is being designed and built, communal spaces are usually recommended and often required. It is argued that communal areas are necessary to create a good environment for therapy and care for confused or very frail elderly and that spaces to meet will help to create and maintain good relations between less handicapped inhabitants. However, little seems to be known about how these rooms are expected to function. Consequently, neither space nor functional requirements are provided in briefs and recommendations. Therefore, researchers at the Norwegian Building Research Institute in Oslo and SINTEF in Trondheim have collaborated on a case study of communal spaces in nursing homes and assisted living projects in Norway. The study has made it possible to set out some recommendations as to the location of communal areas, the size of the rooms, relationship to outdoor space and internal circulation as well as interior design of the rooms.

Author note

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INTRODUCTION

Communal spaces are generally seen as an asset and a necessity both in new housing and institutions for the elderly. Rooms for communal use are consequently often required or recommended in new projects. Arguments about additional cost are usually met with the reasoning that communal facilities are needed as a basis both for therapy and care of confused or very frail elderly and to create and maintain good relations between less handicapped residents. Little seems to be known, however, about how these rooms are expected to function. Briefs and recommendations seldom state functional requirements or other preconditions for the design of communal spaces. As a basis for a better knowledge base, researchers at the Norwegian Building Research Institute in Oslo and SINTEF in Trondheim have collaborated on an investigation into communal spaces in nursing homes and assisted living projects in Norway.

The need to know more about allocation, design and general functionality of communal areas had also been felt in Norwegian State Housing Bank, which finances and controls the quality of most new nursing homes and dwelling projects for the elderly in Norway (see Christophersen 2002) and which also financed the study.

A case study consisting of on-site analysis and interviews makes up the main body of the project. Case selection was based on a quantitative study of applications for State Housing Bank funding over a 12 month period. The study involved a statistical analysis of data from architects' drawings relating to types of housing, buildings and rooms types, floor area, numbers of dwellings, sizes of groups using each room etc.

INTRODUCTORY PHASE: LITERATURE SEARCH AND STUDY

Although the researchers were well acquainted with current thinking on the subject of communal areas in dwellings and institutions for elderly people, a comprehensive approach demanded that the study should start with literature searches and studies. As expected, the results were rather meagre, but a sufficient amount was uncovered to put a short, annotated bibliography together. (Christophersen, Denizou, Høyland 2002). The major part of the literature consists of international and particularly American publications. The bibliography also contains a first attempt at defining different types of communal rooms in relation to circulation areas and other main functions in the projects.

FLOOR PLAN ANALYSIS

Data relating to building types, size of project, location, space consumption, types of floor plans etc had been collected in two earlier studies (Christophersen 1995 and 1998). These did not, however, take a detailed look at communal spaces, and there was also the chance that more recent housing projects would differ from those in earlier studies. There was thus a need to do a new quantitative study, not least to gain information that would make it possible to select some "typical" projects, thus simplifying and objectifying the choice of projects for the case study.

The first finding was that "typical" designs do not exist. There is instead a wide variety of projects. Adaptations to local conditions and needs are the most probable explanations. On a more abstract level, however, similarities exist. The arrangements of the private units, the overall architectural solutions and the types of communal spaces conform to a few basic types (figs. 1 and 2). Space consumption varies (for averages see table 1) according to dwelling type of dwelling[1]. Some of the averages, as in the case of a separate kitchen, represent insufficient space standards.

Table 1. Communal rooms. Average floor area per person of in the three main types of housing.

	Kitchen/dining combined	Separate lounge	Separate kitchen
	Average floor area per person	Average floor area per person	Average floor area per person
Self contained dwellings	5,2	3,8	2,1
Communal living	9,8	3,8	1,6
Collectives	4,7	3,4	2,3
Nursing homes	5,3	3,5	1,8

The communal spaces are provided either (1) as a separate building (sometimes connected to the private units by a covered walkway) or (2) built into the scheme, but without internal access or (3) with main access from internal circulation space. The latter can be divided into three categories with subdivisions shown in figures 1 and 2.

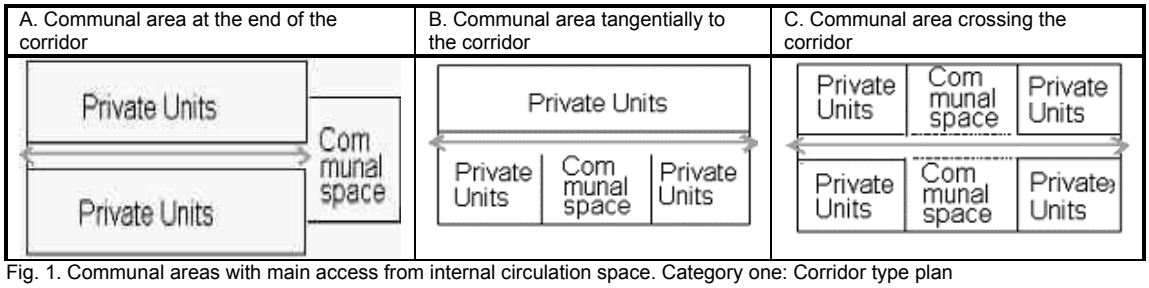
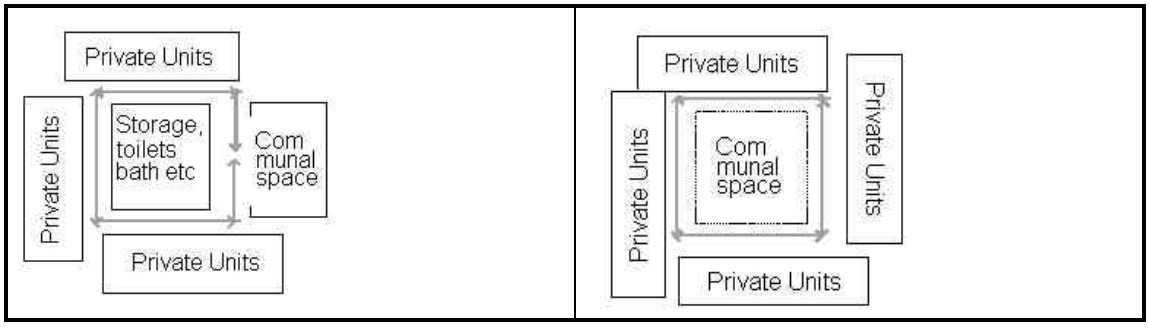


Fig. 1. Communal areas with main access from internal circulation space. Category one: Corridor type plan



[1] The Housing Bank has defined three types of dwellings. 1) self contained dwellings, in which the private units have all main dwelling functions in the private unit, 2) communal living, where the kitchen and sometimes the bedroom in the private units are smaller, 3) collectives, where the private units consist of only one room plus bath; no private kitchen facilities are provided, and 4) nursing homes that have private units of he same type as the collectives.

A. ”Tangent” solution; the circulation route passes along one side of the communal area.	B. “Race track” the circulation route runs around the communal area.

Fig. 2. Communal areas with main access from internal circulation space. Category two: Cluster type plan; continuous, circular circulation pattern.Note: Modern literature recommends the continuous circulation system, particularly in housing for people with dementia. Corridor systems have been seen to have a number of drawbacks, but are nevertheless still common in new developments.

There are basically four types of communal rooms: lounges, dining spaces, kitchens and smaller spaces off circulation space. For the first three, the most common solution is to combined kitchen and dining room in one room and to provide a separate lounge. Some projects, however, have three separate rooms or one large space. In some solutions a degree of flexibility is obtained by means of sliding wall panels, wide doors or sliding doors. The fourth category of communal rooms is provided in the form of small seating arrangements in, at the side or at the end of corridors. (Figs. 3 B and 4.)

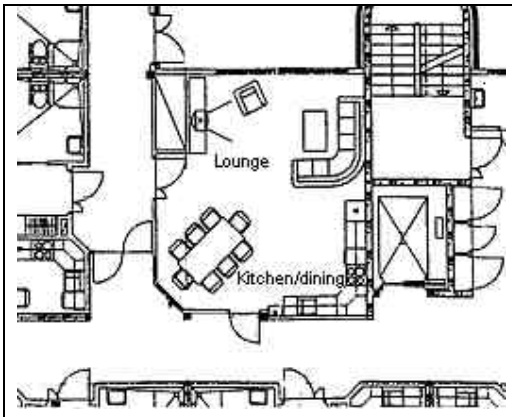


Fig. 3A. Lounge, kitchen and dining space combined, in one room

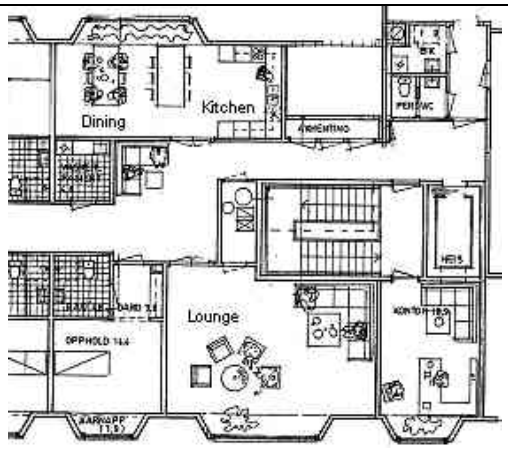


Fig. 3 B. Kitchen and dining space in one room; lounge as a separate room. This solution also has a small seating arrangement in a wide part of the corridor between the two communal rooms.

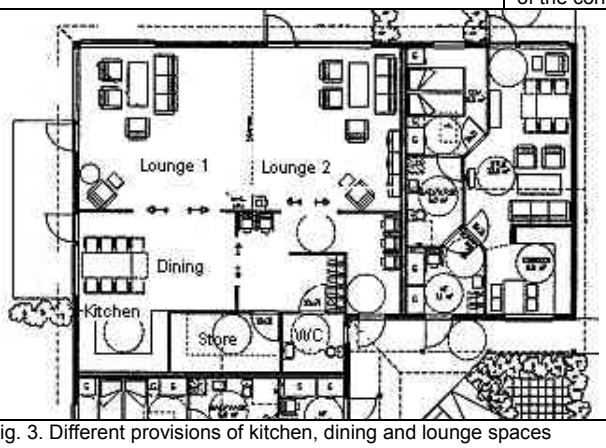
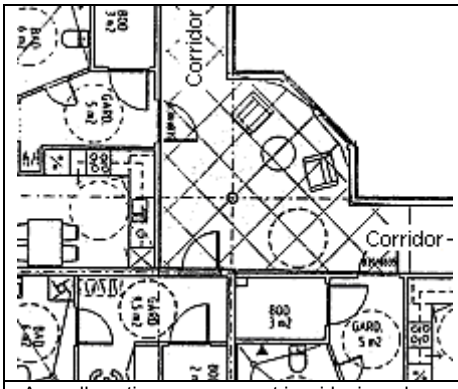
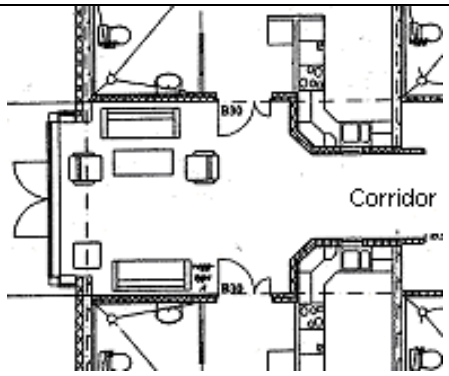


Fig. 3 C. Flexible arrangement by means of sliding panels and doors.

Fig. 3. Different provisions of kitchen, dining and lounge spaces



A small seating arrangement in widening where a one-sided corridor turns



The end of the corridor is widened to make room for a seating arrangement.

Fig. 4. Communal spaces in/off circulation areas

CASE STUDY – DESIGN AND USE OF COMMUNAL SPACES

The projects selected for the case study are situated all over the country and in a variety of settings; cities, towns and rural areas are included. The geographical locations range from the extreme north (Finnmark) to the very south (Kristiansand and Søgne). The selection was made on the basis of the floor plan analysis of all projects financed by the State Housing Bank over a 12 month period.

The study had two objectives. One had to do with the physical conditions, the size and shape of the communal rooms, daylight and view, access and relationship to other indoor and outdoor spaces, choices of materials, colours, fittings and furniture. The other objective was to investigate the experiences of care workers and residents.

The usual four categories of housing for the elderly based on the size of the private units (see footnote above) are of little use in our context. A more meaningful and broader classification is to distinguish between two main groups: (1) projects where the care workers come in from the outside and (2) projects with a regular staff. Care workers in the former are usually employed by the local authority's social services department. In the latter, the staff is usually employed on a full time basis, and often on a 24h rotation. Projects without regular staff usually consist of self contained dwellings. Somewhat regrettably, the case study had rather few projects in this category, and the findings are therefore less than conclusive.

Data collection

The case study includes site visits and interviews in a total of 17 projects, roughly equally divided between the four main categories. In-depth interviews were carried out in eight projects; the interviews elsewhere were cut short due to problems of time and cost (Norway is a country where travelling time and expenses will limit nation-wide studies where site visits are essential). Based on the experiences of earlier studies, questionnaires were not used. Here, the object was to make interviewees relate their experiences, rather than listing hard facts. Therefore, the interviews had a conversational form, and only a framework listing necessary themes was drawn up in advance. The results come out almost in a "storybook" form, giving soft, qualitative data that are unsuitable for statistical analysis. There is also a close link between the experiences and the architecture in terms of layout, detailing, use of materials and lighting, which makes generalisation somewhat difficult.

Use and design of communal areas – experiences

A basic fact, which is confirmed in numerous studies, is that most elderly, regardless of physical or cognitive disabilities derive pleasure from taking part in – or at least witnessing activities around them. The central question, therefore, is how architectural design can improve the quality and attractiveness of communal activities. Obviously, the use of the communal spaces also has a lot to do with how the care work is organised. An obvious example is that most meals are organised and are served in the communal areas, and most residents will be present there at meal times. The presence

or non-presence of the residents does not in itself show whether the design fulfils their needs, nor is it easy to isolate which design aspects attract or turn people away.

Room size would seem a basic criterion for functionality and attractiveness; frail residents will often experience large spaces as frightening and often too noisy, whereas small spaces pose problems when moving about. The size of the group using the room is a defining factor. The traditional large spaces for 20-30 residents are a thing of the past. The projects in the study had rooms for six to ten residents. How the users experience these rooms is intimately linked to the residents' functional problems: For people with dementia, reports are favourable when the groups are as small as 4-6 residents. In groups of residents without cognitive disabilities, the experience is that very small groups are quickly "exhausted" socially, and that groups of eight to ten residents work well – or that there is a need to build social networks across the residential groups. It is felt that the architecture can be of some help to build such networks, but how to achieve it is unclear. Even in developments where a need was felt networks for across groups, lounges in what seemed ideal positions for cross group use were in fact empty and unused. Rooms for smokers are a notable exception. Some residents use walkways through several groups to get physical exercise; some make contacts on the way. Others find that the walkways are confusing and unnecessarily strenuous to use.

Dissatisfaction with space standards is reported, particularly in the dining spaces where there is a particular need for care workers to assist the residents, and for parking a number of ambulatory aids at mealtimes. Communal kitchens, although generally small – only slightly larger than those found in ordinary housing – are generally seen as adequate. The reason is that the frailest residents are reported to be content with watching what is going on and only a few in each group take active part in the kitchen activities at one time – and always supervised. The kitchens are also generally experienced as the most attractive among the communal spaces, largely, it seems because it is a place where something goes on. Logically, this could mean that kitchen, dining and lounge would work best if it is provided as one large space. However, the reports show that this is not always the case: If the group is large (8-10 residents) noise and confusion may cause problems. Where this is the case, the staff suggests flexible partitions, so that the spaces can be rearranged as the needs of the residents change over time: According to the staff, the number of confused and frail residents needing smaller and more manageable spaces will change, sometimes rapidly, and the diversity of problems among the residents seem to increase.

Communal spaces in staffed and unstaffed developments seem to function somewhat differently. The reason would seem to be that the residents in unstaffed developments are less frail and better able to manage their own affairs than residents in projects with a regular staff. The interviews indicate three man differences with regard to design and planning:

- The groups of residents using the rooms can and should be larger in staffed than in unstaffed developments. The reason is that the number of the residents in unstaffed developments will pursue social activities elsewhere in the community. Large spaces are also less of a problem in unstaffed than in staffed developments.
- Staff should be discouraged from entering and using the communal rooms in unstaffed developments. These residents experience and use the rooms as private spaces, and staff may easily be seen as intruders. In staffed developments, the presence of staff is often necessary, as they provide motivation and create opportunities for the residents' use of the communal spaces.
- The rooms can be less centrally situated in unstaffed than in staffed developments, for the same reasons as above.

Outdoor space is used extensively in the cases where access is simple and direct. Indeed, this is probably the question where the relationship between layout and use is best illustrated in the study: In some of developments, outdoor space can only be reached by means of stairs or lifts. Where this is the case, the residents rarely if ever use the green space. Solutions where the dining space or more commonly the lounge has a door that opens directly to the garden or a balcony, the outdoor area is used extensively. Evidence of use/non use seen at the site visits were confirmed by residents and staff alike. Worthy of note is also that the possibility to access outdoor space is highly appreciated by the residents.

Recommendations (1): Location of communal spaces

In housing with permanent staff, the use of communal rooms must to some extent be seen in connection with the management structures and daily routines. A basic fact, which confirms the findings in other studies (particularly Gottschalk et al 2000), is that presence of staff and regular organised activities such as meals can be seen to generate informal activities. This holds true both in nursing homes and in all kinds of assisted living projects, whether the staff is employed on a 24 hour basis or only come in during the daytime. Of particular interest is that even the frailest among the old, who are often unable to participate in communal activities due to severe cognitive or physical disabilities, take obvious pleasure in passively watching what other people are doing.

The consequence for physical planning is that all communal spaces should be centrally located. They should also, regardless of their main function or size, be laid out in such a way that there are good chances of observing or taking part in whatever activities are going on. Views to active outdoor and indoor spaces are essential. Communal spaces in remote and sheltered places are seldom used.

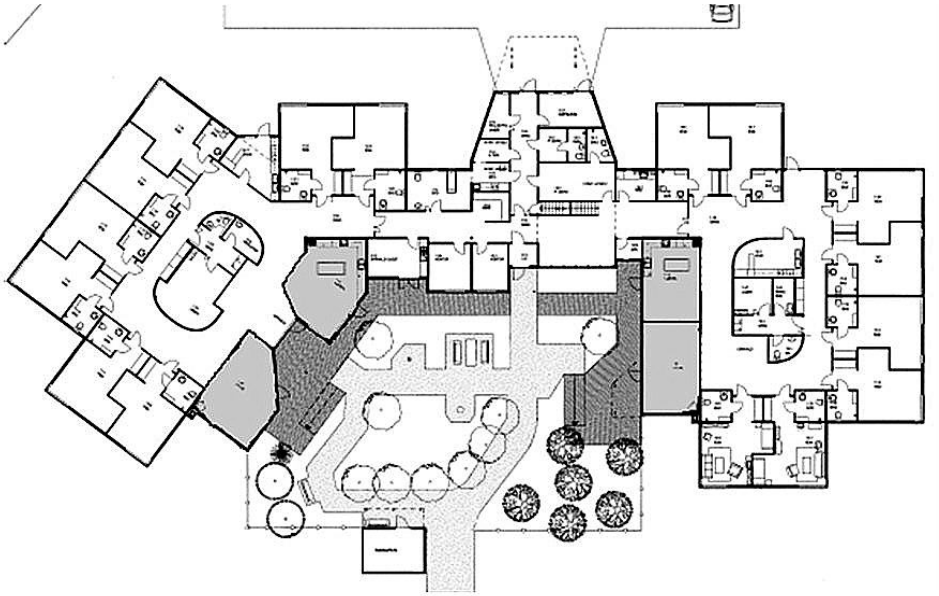


Fig. 5. Spacious, centrally located communal rooms (shaded) overlooking both the main entry and the main internal circulation route. (Sonjatun, Norreisa municipality. Architect: Erling Haugen)

Fig. 6. Views to outdoor space are essential. (Kanebogen, Harstad municipality. Architect: Arne Malm)

Recommendations (2): One or several rooms?

As figure 3 shows, the three main spaces – dining, kitchen and lounge – can be laid out as one, two or sometimes, but rarely, even three rooms. The choice can be difficult. Indeed, a combined solution with all three functions in one room seems to work just as well as solutions with two or three rooms. In the cases where functional problems were noted, the architectural solution was rarely the cause. One fact seems important, however: the size of the group using the rooms.

Activity is the main factor that makes communal rooms attractive as places to be. There is therefore a need to have several activities going on simultaneously. This contributes a feeling of liveliness and at the same time gives the residents an opportunity for choice. If the group is large, the noise and general hubbub will more often than not be a source of confusion. To avoid it, some functional separation is necessary if the rooms are intended for groups of eight or more residents: Dining and kitchen may well be in one room, but a separate lounge should be provided. Separating the lounge from the dining/kitchen functions may also be advantageous for smaller groups, depending on the residents' functional abilities, number of staff and management routines. In addition, there are a number of architectural solutions that can be put into play to create links between a separate lounge and the kitchen/dining functions, depending, it would seem, mainly on the imagination of the architect.

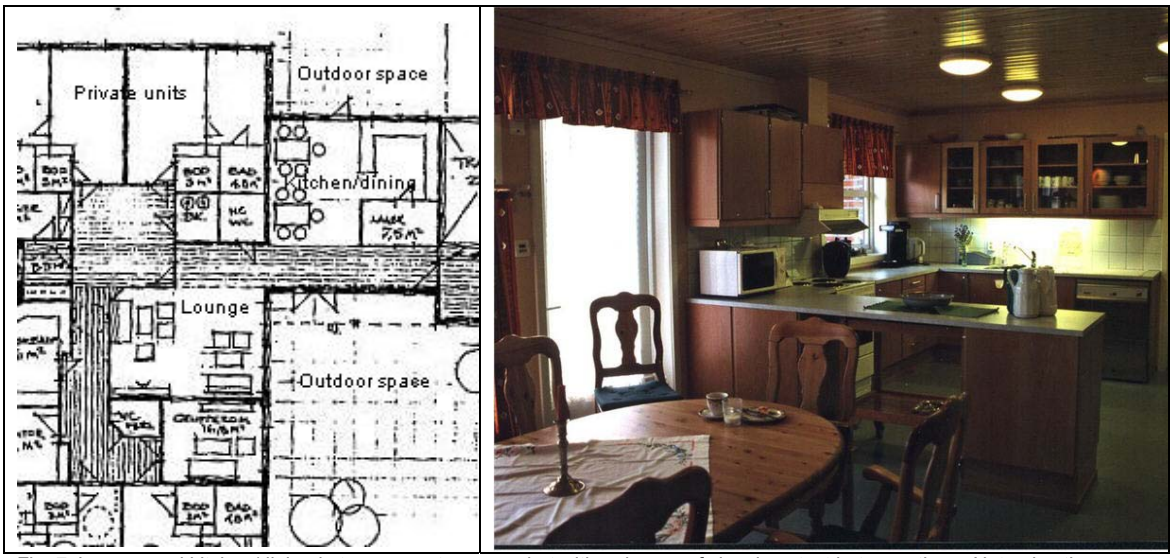


Fig. 7. Lounge and kitchen/dining in two separate rooms, but with a degree of visual contact between them. Note also the access to outdoor space from both rooms. (Tønsberg municipality, architect: Kjellaug Sandvik Eggen.)

Access to outdoor space from lounge and dining is of prime importance, as there is clear evidence that the outdoor space next to the communal rooms is popular and is used considerably more than any other space, including (where provided) private open space. Thus, the provision of outdoor space next to the communal areas not only enhances the communal rooms, but may also contribute to increase their usage.

Recommendations (3): Relationship to circulation space – closed or open?

The choice partly depends on noise. If the circulation space is busy and noisy, the communal rooms should be partitioned off from the circulation space. Busy circulation space is, however, mainly a problem in large institutions, and is thus comparatively rare as institutional facilities are discouraged because they contradict the modern ideal of domestic architecture and home-like qualities.

Whether to provide open plan solution or rooms that are closed off becomes therefore mainly a question of spatial qualities, and, in some places of management structures: Open plan solutions may contribute towards keeping running cost down, as fewer staff will be needed to safeguard the residents. Obviously, an open plan will also create an impression of roominess, and this may well be an asset, as space consumption always has to be kept to a minimum in order to control construction cost.

Of the possible options for an open plan solution, it seems that the best way is to let the main circulation route run tangentially to the communal area. (See figs.1B and 2A.) Careful design is, however, necessary: The circulation route should not run through the communal space, but along its side, and the border between the two must be easy to see and comprehend. It is, in other words imperative that the communal area is well defined as spatially separate. The reason is obvious. Most residents will have some form of orientation disability, whether visual (poor eyesight) or cognitive.

Fig 8 a. Sonjatun, Norreisa municipality. Architect: Erling Haugen

Fig 8 b. Melløsparken, Moss municipality. Architect: Jansen arkitekter AS

Fig. 8. Communal spaces located tangentially to circulation space. The communal rooms are clearly delineated from the circulation space in both instances. The opening is clearly marked. The communal room and the circulation space have different ceiling height and different light fixtures. The open solution adds a sense of roominess to both communal spaces.

Recommendations (4): Floor area

A main consideration is to have enough space to move and park mobility aids. The problem, which relies heavily on the imagination and competence of the architect, is to stay within the constraints of a tight budget and yet create well functioning and sufficiently roomy spaces that are domestic in character. A determining factor is the size of the group of residents. The general recommendation is that the group should be no larger than eight (i. e. eight private units to each set of communal spaces). If the residents have medium to severe cognitive disabilities, however, groups of

eight are usually excessive. It has to be kept in mind that more than 80% of the future nursing home population will have dementia. Consequently, a case for small groups and correspondingly modest communal rooms can be made, particularly as the residents in assisted living projects gradually develop more severe functional problems. Table 1 lists a guide to floor area per person.

Recommendations (5): Additional rooms and spaces

Small seating arrangements off or in corridors have been briefly mentioned earlier. Their function is to provide informal meeting spaces. They should therefore be strategically placed in positions where people are likely to meet and where some activity is going on. Daylight qualities should be high and there should also be views to an outdoor space.

Rooms for smokers and rooms where people from different residential groups in the project have a chance to meet is generally seen as advantageous. Such meetings add to the social life among the residents and may encourage people to visit each other in their private units.

Furnishings

The literature on this subject leaves little doubt, and the study confirms it: Modern style should be avoided. Most residents feel most a home in surroundings that are furnished in an old fashioned style. A further argument is that once the present adult population reaches old age, the fixtures and furniture will have been worn out and replaced by furnishings that suit the next generation of elderly.

In the kitchen there should both be an opportunity to watch what is going on – for the frailest – and opportunities to take part. A counter facing two ways with open space underneath seem to be essential (see fig 7).

CONCLUSIONS

General, main points regarding the planning of communal spaces are: Some organised activities, meals being the most obvious, are necessary to ensure that communal rooms will be used. Other important points are central location, easy access from circulation space as well as a view of and direct access to outdoor space. Floor area must be carefully considered in connection with the size of the group that is going to use he rooms, space for mobility aids, staff numbers and management routines.

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