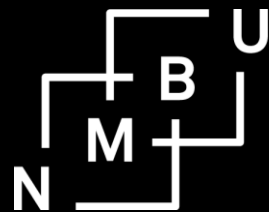


Of Urban Commons

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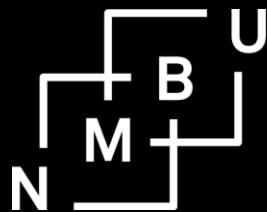


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Of Urban Commons

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Of Urban Commons¹

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Abstract: *Last summer visitors to the Oslo opera house were met with the following announcement: “Here comes the “Opera Commons” explaining: “Operaallmenningen”, the Opera Commons, “will be a multi-functional meeting place for cultural events, recreational activities and people passing through.” The choice of “allmenning” (commons) to designate a place that is available to citizens of Oslo and their visitors as a “meeting place for cultural events” and “recreational activities” may be part of an international trend idolizing “the commons”. This trend one may observe both in academia and in some political circles. The trend deserves some reflection in its own right. Why is there currently a need for this term?*

The established theory of the commons does not have much to say about urban reality in its own right. However, the theory is well developed to understand some problems of collective action as these appear in urban development. The link between land tenure and structure of land use decisions is well known. We shall use the theory of the commons to comment on the link between tenure and form of commons that may appear and the problems of governing urban commons in various forms.

Key words: Urban commons, common pool goods, social dilemmas, Oslo

JEL codes: R10, Z18, H40

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Of Urban Commons²

Erling Berge

1. Introduction

In 2008 Oslo got a new opera house (above). In the summer of 2014 visitors to the opera house met the following announcement: “Here comes the “Opera Commons””.

Here comes OPERAALLMENNINGEN

Operaallmenningen, the Opera Common, will form Bjørvika's largest urban space. It will be a multi-functional meeting place for cultural events, recreational activities and people passing through.

The Operaallmenningen is centrally located at the point where Oslo Central Station (Jernbanetorget), the Opera and the fjord meet - right in front of the new Deichman Library.

Outside of the library there will be a 2000 m² water surface - constructed so as to be drainable, freeing up space for an abundance of events, and it can be used for ice skating in the winter time.

"I believe that Operaallmenningen may become this century's most important urban space in Oslo," Bård Folke Fredriksen, councilman for urban development, observed in his introduction to the Bjørvika conference 2013 "Ny by i byen - a new city in town".

Excavation work for the new main library at Bjørvika began in January 2014 under the auspices of the City of Oslo and Kulturbyggene i Bjørvika.

Bjørvika Infrastruktur is responsible for development of the Operaallmenningen, and completion is expected in connection with the opening of the library.

Start-up in 2015
Completion expected in 2018

Bjørvika's PUBLIC SPACES

Bjørvika is one of the largest urban development projects ever seen in Norway. Upon completion, the new Bjørvika district will provide 5000 new homes and 20 000 new places of work.

Bjørvika covers a total of 820 000 m². 40% of this will be turned into parks, commons (known as "allmenning" in Norwegian) and a pedestrian promenade. A quarter of the area to be developed had been completed by the end of 2013.

Bjørvika Utvikling AS has overall responsibility for all public space construction in Bjørvika. The district's public spaces are being completed in accordance with the rest of the property development in the neighbourhood.

Once the public spaces have been fully developed, they will be handed over to the City of Oslo free of charge. The Office for Real Estate and Urban Renewal handles property management, while the Agency for Urban Environment is responsible for maintenance.

Bjørvika Utvikling AS is owned by HAV Eiendom AS and Dulo 5 Utvikling AS, with shares of 60% and 40% respectively - reflecting ownership distribution of the area being developed in Bjørvika.

BJØRVIKA UTVIKLING AS
BJØRVIKA INFRASTRUKTUR AS

www.bjorvikautvikling.no
#bjorvikautvikling

Figure 1: Information billboard outside the Opera building in Oslo summer 2014 (Source: foto by Erling Berge).

It also explains: “Operaallmenningen, the Opera Common, ... will be a multi-functional meeting place for cultural events, recreational activities and people passing through.” The announcement is interesting. The Norwegian word “allmenning” is usually translated as “commons” and will in most cases designate a very old form of joint ownership or ownership in common among a well-defined group of people, usually called the commoners. Their

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Norwegian legal reality is regulated in legislation from 1857, 1863 and 1920 with the last major revision from 1992³.

The naming of this square⁴, located beside the Opera house and in front of Oslo Central Station, as a commons indicates that an urban commons in Norway is a centrally located urban area with very little “green stuff”. It will be similar to the main square of Bergen: “Torgallmenningen”. It will appear as very different from the urban parks that are constructed as nature areas with grass, trees and flowers, sometimes with a classical garden design. In their green appearance, urban parks are similar to national parks and similar protected areas. Both urban parks and protected areas have been discussed as forms of commons (Lee and Webster 2006, Colding 2011, Vasstrom 2014, Pieraccini 2015).

Yet, the Opera commons appears as different from these. It will be one of the main squares in Oslo and with comparatively little “green stuff”. One interesting part of the designation of this area as a commons is that it was named so in 2004 at the same time as the City Council named an additional 4 areas as commons: Festningsallmenningen, Akerselvallmenningen, Stasjonsallmenningen, and Loallmenningen. What do the Norwegian word “allmenning” signify in this context? Why are urban planners and politicians thinking of public spaces in the city as “commons”?

Towns and Villages in England

In the English language and in English history it would be a bit less strange than in Norway. In Norway the traditional urban commons were called “takmark”. They have today disappeared as such, but in some places the “takmark” area remains as “Bymark”, available for the citizens for recreational activities (Christiansen, Sandnes, and Sætre 2006).

In England the tradition of English town and village greens is rooted in traditional commons that used to be available for people in villages and towns to graze their animals, similar to the Norwegian “takmark”. Such town and village greens have been used for more than hundred years for

³ The acts are available in English translation in Berge, Mitsumata, and Shimada (2011).

⁴ The “Operaallmenning” got its name as part of the large scale urban development called the Fjord City (Oslo Kommune 2008). See Reguleringsbestemmelser for Bjørvika - Bispevika – Lohavn, Oslo kommune, Byrådsavdelingene, S-4099, 15.06.2004.

sports and recreation⁵. Many are owned and maintained by local parish or community councils, though some are privately owned. Some of them still maintain “rights of common” over them⁶. Seen from the outside, they do not seem to be very different from urban parks, but their origin and management are different.

Rights of common

In traditional commons the commoners possess rights of common. According to the Norwegian Supreme Court such rights do not depend on legislation. They are based on customs reaching back to a time before the creation of the modern state. This view of the rights of common has created certain problems for Norwegian commoners. Adapting the resources of the commons to new uses and changed technology have proved very difficult (Berge and Haugset 2015). A few of the traditional rights of common have been taken into the act on outdoor recreation (LOV-1957-06-28-16) as part of the “all men’s rights”. This act may be a point of departure for discussing a definition of rights of common that may apply in urban situations and assist commoners in getting organised.

The “new urban commons” of Oslo

The Norwegian legal reality has since 1883 been clear about what “allmenning” means. The law recognize two types, State commons, and Bygd Commons⁷. One major anomaly⁸ in this is the main square in Bergen,

⁵ A shift from rural to urban interests in the use of commons is noticeable in English legislation at least from 1866, see Metropolitan Commons Act 1866 and Commons Act 1876 (Halsbury 1968, 859-898, Berge 2007).

⁶ The Commons Registration Act 1965 defines town or village greens as land on which inhabitants of any locality have a right mandated by law, custom, or public acceptance (not less than 20 years) to indulge in lawful sports and pastimes (Halsbury 1968, 934), see also amendments in the Countryside and Rights of Way Act 2000, section 98, clarifying the definition.

⁷ The fact that also in Norway many other forms of co-ownership exist and would be recognized as commons within the theory of commons as it has developed is irrelevant. In Norwegian “allmenning” has taken on the very specific meaning found in the legislation.

⁸ Another anomaly is the existence of “Private Commons” defined in the legislation from 1857 and decided to be enclosed in the legislation from 1863. But according to judgements of the Supreme Court of Norway, last time in 2000, they still exist. See Berge and Haugset (2015) on one such case.

“Torgallmenningen”⁹. Is the presence of “Torgallmenningen” sufficient explanation of the sudden popularity of “allmenning” as a designation of urban plazas?

Traditional commons were created to manage the resources within a suitably delimited area and often the commoners held the land in common or jointly, but there are also many cases where the landowner was the crown (more recently the state). In Norway public parks and urban squares of all kinds are owned and managed by the municipality. However, the problems of governing urban commons in their various guises are only weakly tied to the ownership of land.

Reading through the documents “Fjorbyplanen” and “Zoning regulations for Bjørvika - Bispevika – Lohavn” (Oslo Kommune 2008, 2004) we are left with the impression that the new commons in Oslo are planned to provide a link between the shore areas and the city behind the new development called the Fjord City. We also learn that each part of the Fjord City shall have one or more commons and one park. The commons and the park are seen to provide different qualities. The parks are located along the shore and planned to be the main attractions. We also learn that the commons are different from promenades and recreational areas (Oslo Kommune 2008, sections 2.2.2, 2.5.2, and 7.1).

The creation of the new urban commons in Oslo has a clear historical model. They also conform to the rather wide definition of a commons as a shared resource in which each stakeholder has an equal interest. Otherwise they do not present us with much in the way of governance problems. There are many other commons, but not labelled as commons, that are of greater interest.

⁹ “Torg” means main square or plaza. “Torgallmenningen” was named so after a major fire in 1702 and recreated in its current form after the fire in 1916. Its main function from the start in 1582 was protection against fire. Between 1660 and 1702 it was known as “Vågsallmenningen” (the Bay commons). Today it is the main public area in Bergen, see <https://no.wikipedia.org/wiki/Torgallmenningen>. Apparently the practice of creating a “commons” (allmenning) to protect against fire was much older. Before 1702 Bergen had major fires in 1198, 1248, 1413, and 1476. This led to the creation of several commons cutting across the town from sea to mountain (Lorange 1990, 253).

Why is “commons” interesting?

Some of the more commonly used concepts of science do not have clear boundaries. Consider for example ‘cause’ and ‘causation’. In fact, most concepts in natural languages do not have clear boundary rules. Meaning is established by usage rather than by definitions. Over time, their meaning will change, mostly without being noticed by the users of the language. Even if the language of science is different in some respects, it is surprisingly similar in most of its dynamic. Core concepts are not well defined, meanings are established by usage, evolve, and change across generations of users.

In our view “commons” refers to a basic concept with a strong core speaking to and being understandable for most people, but without clear conceptual boundaries. While most people will be able to point to a commons they readily recognise, any two persons from different institutional contexts may have to discuss at some length to agree on similarities and differences in the classification of their favourite commons. It would seem reasonable to call it a fuzzy concept.

The International Association for the Study of Commons (IASC) has during its history tried out several ways of framing the study object: “the commons”. For a long time it was “environmental resources that are (or could be) held or used collectively”. By 2010 it had become “environmental, electronic, and any other type of shared resource that is a commons or a common-pool resource”. Hess (2008, 37) says: “*A commons is a resource shared by a group where the resource is vulnerable to enclosure, overuse and social dilemmas. Unlike a public good, it requires management and protection in order to sustain it*”.

In the Italian city of Bologna they have a particular ordinance on “Collaboration between Citizens and the City for the Care and Regeneration of Urban Commons.”¹⁰ In this ordinance an urban commons is defined as “... the goods, tangible, intangible and digital, that citizens and the Administration, also through participative and deliberative procedures, recognize to be functional to the individual and collective wellbeing, activating consequently towards them, pursuant to article 118, par. 4, of the Italian Constitution, to share the responsibility with the Administration of

¹⁰ See <http://www.comune.bologna.it/media/files/bolognaregulation.pdf>

their care or regeneration in order to improve the collective enjoyment” (Section 2a).

Today the Digital Library of the Commons simply says: “The commons is a general term for shared resources in which each stakeholder has an equal interest”¹¹.

This paper will adhere to this definition. The essence here is **shared** and **equal**: *shared* resource and *equal* interest. One can understand that this emphasis will have political appeal to people in opposition to privatization and individualization of resources.¹²

However, political implications were never the goal for the study of commons. The goal was to understand why it sometimes is difficult to organise the exploitation of a shared resource so that it benefits the stakeholders equally and sustainably. In this endeavour, some conceptual clarifications proved decisive:

- The *character of the good* that the stakeholders were interested in appropriating (Ostrom and Ostrom 1977). How could one exclude anyone from appropriation the good? What kind of rivalry for the utility of the good could develop?
- The number and diversity of stakeholders with an interest in the resource (Ostrom 2005). The *scale* of the organisation problem is not only depending on the number of stakeholders, but also on the cultural characteristics, the structural diversity of the group, and its means of communication.
- The societal *context* of the resource and the stakeholders of the resource (Honadle 1999, Ostrom 2007).

¹¹ See <http://dlc.dlib.indiana.edu/dlc/contentguidelines>. This definition is not very different from the Norwegian dictionary definition: «fellesområde, eit stykke land som alle, eller eit særskild kollektiv, har bruksrett til, uavhengig av eierforholda» (<https://no.wiktionary.org/wiki/allmenning>).

¹² Interestingly, it was the faulty political implications of Garrett Hardin’s “Tragedy of the Commons” (Hardin 1968, 1998, Berge and Laerhoven 2011) that triggered both the creation of the association (IASC) as well as the broad topic of commons studies of today (Ciriacy-Wantrup and Bishop 1975, Bromley 1992, McCay and Acheson 1987, Ostrom 1990, 2005). Eventually this led to Ostrom in 2009 being awarded “The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel”, mainly for her study “Governing the Commons” from 1990.

These three aspects of the commons interact and create complex and unique empirical instances of commons. Some of the difficulties in making commons workable have been identified as social dilemmas (sometimes called social traps, see text box). The original “tragedy of the commons” metaphor is now recognized as a social dilemma, usually illustrated by the parable of the “prisoner’s dilemma”. The commons where this kind of dilemma has been avoided are characterized as small-scale and stable communities. Introduction of an external market for the goods from the commons has often altered the structure of decisions producing a dilemma. The research frontier today is to understand how one may create a structure for interdependent decisions that dissolve the social dilemma in larger communities (more than a few thousand) and with social change as a permanent characteristic.

Social dilemmas and social traps

From game theoretic analysis of decisions that are interdependent we learn that a social dilemma „occur whenever the private returns to each participant are greater than their share of a joint return no matter what other participants do“ (Ostrom 2005, 37). Or more formally: „There is a Pareto superior cooperative outcome that renders everybody strictly better off relative to the Nash equilibrium“ (Fehr and Fischbacher 2005, 165 note 14). The Nash equilibrium is the decision that a rational player will choose assuming all other players are rational and choose their best strategy. If the rules governing the decisions provides strong individual temptations for maximising the utility given that others are assumed to do the same, the social dilemma is often called a trap. This means that all rational decision makers will be tempted to not cooperate, and all cooperation will disappear, resulting in the worst possible outcome. The tragedy of the commons (Hardin 1968) and the prisoners dilemma (Axelrod 1984) are examples of such social traps (Rothstein 2005).

It should be emphasised that it is the structure of making decisions (the institutional structure) for interdependent decisions that creates dilemmas. Both the tragedy of the commons and the prisoners dilemma tend to disappear if the commoners or the prisoners are allowed to communicate and make credible promises.

The insights from the study of “traditional” resource commons have been applied to new resources such as knowledge (Hess and Ostrom 2007), global commons such as the oceans and the atmosphere (Buck 1998), or technological commons such as the internet (Brin 1995), the radio waves (Berge and Kranakis 2011), and even culture (Bertacchini et al. 2012). One rapidly growing topic is the study of various types of infrastructure and the

possibility for organising this as commons (Frischmann 2012). The importance of transport infrastructure is inherent in the definition of urban communities. A division of labour requires that workers come together to co-produce the goods they know to make. Dense living quarters require that people are able to obtain foods and other stuff for their daily reproduction. People need to get to the market place where such stuff is offered. Places of production and places of trade need commodities transported in and out of their localities. Time and resources spent on transport work can be high or low per unit produced or traded. Urban areas with relatively low cost transportation will benefit all citizens albeit not all to the same degree. The best way of providing and maintaining transport infrastructure is not a constant. Developments of new technology may alter the cost and form of transportation drastically in a short time. Rate of population growth may change the utility of existing infrastructure significantly. Some, like Frischmann (2012), suggests that managing transport infrastructure as commons may produce more functional transport systems than we have today.

The nature of urban communities will include more functional requirements than transport such as containing (and sometimes exploiting) the many kinds of externalities generated.

We shall here start exploring the insights from the study of commons on what seems to be a rapidly growing topic in the study of commons: “the urban commons”, and in particular aspects of land tenure in the urban commons.

2. Theoretical background

It may be worth considering that the formality of land tenure is not a big issue in the study of commons. This is also the point of departure for discussing urban commons here. But land tenure in developed urban economies is important so we shall have to return to this.

What counts as a resource is defined by the knowledge and technology able to produce or provide something that people want, starting out with the something we identify as the resource. That which we want from the resource, we shall call a good. Each person will value the good in an idiosyncratic way and obtain utility from it. The degree of variation among persons in utility obtained from a good is an empirical question. But we

need to assume that the goods obtained from a commons provide a certain minimum positive utility for all members of the commons. We should also keep in mind that the arguments about goods are equally applicable to bads with suitable changes of motivation.

Certain types of resources of a commons are vulnerable to enclosure, overuse and social dilemmas. Hence, a commons usually comprise an institutional infrastructure including people committed to values furthering sustainable resource exploitation and in most cases also a group benefitting from the resource (the good). This group is usually charged with a duty to protect the reproduction of the good. This implies rules for appropriating the good and a system for monitoring and sanctioning those breaking the rules. Traditionally the bearers of the institution and the group of beneficiaries are the same. In resource systems larger than those that a traditional community (rural or urban as the case may be) can exploit, we see that these two groups are separated. Does this make a difference?

One key concept in understanding this is the legal authority and technological feasibility of excluding any particular person that wants part of the good. The allocation of authority to exclude and the cost of exclusion determine the form of detailed rules needed to control harvesting of the good and ensure its reproduction.

The other aspect to understand is the characteristic of a resource unit that provides utility to a consumer. It is here helpful to distinguish between the good as such and the utility of the good that any particular consumer enjoys. The traditional goods of traditional commons are of a kind where one person's enjoyment of the good makes it impossible for another person to enjoy the same unit of the good. There is competition (or rivalry) in the appropriation of utility from the good. One may also say that the goods provided by the resource system are subtractable. But many types of goods do not display the characteristic of subtractability in appropriation of utility. Goods that one intends to safeguard in protected areas are usually non-subtractable.

Ostrom and Ostrom (1977)'s classification of goods according to these distinctions provides four ideal types of resources.

Table 1 Typology of goods

Resource is	Appropriators are:	
	Excludable	Non-excludable
Subtractable	PRIVATE	COMMON POOL/ POSITIONAL
Non-subtractable	CLUB/ TOLL	PUBLIC

Source: Adapted from Ostrom and Ostrom (1977).

Private and public goods are well known. Private goods are excludable and have rivalry in consumption. These are the ordinary consumer goods that one can buy in a market. Public goods are non-excludable and have non-rivalry in consumption. The nature of the pure public good is such that if the good is provided at all, it will be available to all whether they pay for it or not. If the armed forces of country are able to protect one person, all persons within the country will be equally protected. This is so because there is no way, either theoretically or practically, of excluding any particular person from this protection. The realization that this was the case for an important class of goods (Samuelson 1954), and the concomitant free rider problem in collective action (Olson 1965), led to important theoretical developments for public policy (Cornes and Sandler 1986, Sandler 1992, Mueller 2003).

This definition of public goods means that there are just three ways a public good can appear. A public good (or bad) may

- 1) appear by itself as natural phenomena (e.g. a beautiful sunset or a violent storm), or it may
- 2) appear as a by-product (unintended consequence or externality) from other social processes (e.g. solidarity or anomie), or it may
- 3) appear because everyone (or at least enough people) contributes voluntarily or by force (taxation) to its production. Those who do not contribute to its production will still be able to enjoy the good and are therefore called free riders.

This definition of pure public goods also implies that they are not welfare goods. They are delivered to the citizen at their full price, usually through a form of taxation, occasionally from voluntary contributions or donations.

Those goods which are neither pure public goods, nor pure private goods, used to be called impure public goods. Goods which are excludable and at

least partly non-rival in consumption have been called club goods (Cornes and Sandler 1986) or toll goods (Ostrom and Ostrom 1977, Ostrom 2005). Partly non-rival means that the initial situation is one of non-rivalry. It can be called a club good because of the nature of the exclusion mechanism. The exclusion mechanism is like a boundary. You can partake of the club goods once you are within the boundary. Once you are inside the boundary the good has the character of a pure public good. As long as the number of members in the club is below "the carrying capacity" of the club, the club good is available to all. As the number of members increase, crowding will lead either to deteriorating quality of the good or to competition for access to the good. It is worth emphasizing the necessity for members to enter and use the club. Unlike pure public goods, club goods have a voluntary element in so far as it requires an intentional act by the consumer to appropriate the good.

Goods with rivalry in benefits, and where the consumer is at least partly non-excludable, are not, like club goods, explicitly labelled by Cornes and Sandler (1986) but they might perhaps have called them "impure private goods". They were labelled common pool goods by Ostrom and Ostrom (1977). Hirsch (1976)'s discussion of the non-excludable aspects of status goods and building locations in urban societies suggest "positional goods" as one type of common pool goods. Partial non-excludability means that the situation usually is considered one of excludability, but may under certain circumstances approach one of non-excludability. However, non-excludability may be more pervasive also for some aspects of private goods than one commonly is led to believe. At the outset, the positional good, in a technical sense, is a pure private good. But during its consumption something happens to make it something else or something more.¹³ It becomes a symbol in the status competition (see (Veblen [1899] 1976, Fallers [1954] 1966, Bourdieu [1979] 1984, [1989] 1996).¹⁴

¹³ The relative attractiveness of various locations is translated into prices, which then clears the queues for the various locations. Those willing and able to pay the most get the most attractive locations. Those with the least ability to pay get the least attractive locations. A housing lot has a position in the overall positional economy. No one can opt out of this. Similarly the latest fashion in for example clothing (or cars or ideas or...) divides the total population into those adopting early and those adopting late - or never.

¹⁴ Granovetter and Soong (1986) investigate consumer interactions in the consumption of private goods and identify a "forward bandwagon effect" if someone buys a product because others already have it, and a "reverse bandwagon effect" if someone stops

If carrying capacity is the key concept of clubs, queues or waiting times are the key to positional goods (and bads). Both may be discussed as forms of crowding effects. Once crowding occurs there is rivalry in consumption and some kind of regulation is needed to protect the good. But the negative utility from crowding propagates differently for the two types. This means that the rules of management have to be different. There are also important differences between common pool resources and positional goods. Over-exploitation of common pool resources leads to scarcity of the good for all requiring an exclusion mechanism before the resource is destroyed. The rivalry in appropriation of positional goods creates queues as a rationing mechanism. Complications for the management of a resource arise as we realize that the same material aspect of the world may hold values of all types. Thus, it is important to keep in mind that the four types of goods are analytical categories (ideal types). Most real world goods are joint products where one may find aspects of more than one type of good.

3. From traditional commons to environmental commons

Natural resources can usefully be divided into:

- The specific material resources embedded in the ground, attached to the ground, or flowing over the ground and
- Eco-system services such as water control, disaster mitigation, local climate control, biodiversity, etc.

Traditional commons have exclusively been concerned with the goods that can be obtained from exploiting specific material resources. The modern concern with eco-system services have led to the creation of organisations and regulations of designated protected areas that arguably can be called commons (Berge 2006, Pieraccini 2015). The goods that the protected areas are protecting are eco-system services and biodiversity aspects of nature. These goods are pure public goods or club goods. National level institutions are managing these goods for the benefit of the national population. As such it may be seen as a (national) commons. Within the protected areas there are also traditional goods that may or may not be exploited by traditional

buying because too many people have bought it. These are precisely the processes Hirsch (1976) associated with the positional economy of urban land ownership. In their extreme form, where consumption of the good only or primarily serves to promote status, we find the processes represented in the potlatch ceremony of some primitive peoples as well as the phenomena in modern society Veblen ([1899] 1976) describes as "conspicuous waste" and "conspicuous consumption".

commoners. One may picture the goods of the new commons as an overlay upon the old goods that used to be exploited within the same areas.

The regulations protecting the public goods (biodiversity) and club goods (eco-system services) provided by the protected area may seem reasonable in relation to the exploitation done by the traditional commoners. But for the traditional commoners it is experienced as just one more friction in the economic system.

Resources and institutions governing their exploitation have to be discussed jointly. This is so simply because the “nature of the good” (is it a pure public good? a club good? a common pool good? or a pure private good? – or a mixture?) found in the resource must be understood in order to design an institutional set-up where governance of the resource circumvents possible dilemmas.

To some extent, the rules may define or modify the characteristics of the good, e.g. excludability. The institutional structure giving meaning to subtractability and exclusion is not included in their definition. Nevertheless, it is there implicit. Are, for example, real world examples of subtractability and exclusion defined independent of technology and transaction costs? Modifications of rules affecting subtractability and exclusion will work only if based on a sufficient understanding of their technological characteristics and the distributional consequences of the regulation are accepted. The link between rules and the characteristics of the good is also found in existing goods. Hence, detailed investigations of the institutional structure governing each resource may be needed to determine for example whether a resource can be said to have common pool characteristics or not. In empirical work the clarity of the technical terms evaporates.

In governance of the environmental commons one important part of the institutional setup is the possibility for handling conflicts between the appropriators of the new environmental goods and those exploiting the old goods (Armitage 2007). This is where co-management might have a mission (Carlsson and Berkes 2005). Just blocking off the exploitation of traditional goods to create or maintain new ones is to create conflicts. Adaptive management to maintain the public good in the face of environmental change is a different task from maintaining a working relation across the divide between appropriators of the new and the old goods. Adaptive co-

management is a very interesting approach (Armitage et al. 2008, Bown, Gray, and Stead 2013, Sandström and Rova 2009, Berkes 2009).

New environmental commons are created to govern goods that are non-subtractable and non-excludable. This means that the problems of free-riding in provision and consumption that lie at the core of common pool resource governance do not take the same form as in traditional commons. The problems of governance of public and club goods emerge from their existence as top-level aspects of existing goods and materialize as a need for negotiating an agreement with stakeholders with established rights in the old style goods whether these rights originate as rights of common or otherwise.

4. Urban commons

As we go into the topic of urban commons, we need to keep in mind the essences of urban communities. Urban areas are relatively densely settled by a relatively large population with a relatively high degree of division of labour. The adjective “relatively” points to a comparison to the surrounding society. Urban areas are different from rural areas in terms of density of settlement, size of population and division of labour. These variables affect the community members and their relations to each other. They will also affect those goods that the urban community members want to hold in common.

Urban commons are typically public goods or club goods. The definition of commons as shared resources in which each stakeholder has an equal interest suggests

- The resource is found within a particular area
- The resource is tied to a production organisation able to produce or provide a good in which each stakeholder has an equal interest

In each case, two management problems must be dealt with: 1) to provide access to the resource (and the goods that can be produced from it) on an equal basis, and 2) to ensure the reproduction of the resource.

Recent years has seen a rapidly growing number of studies of urban commons. However, natural and environmental resources are not a significant part of what we see as urban commons today. Many of the studies are focusing on land for common use or enjoyment: parks etc. (Lee and Webster 2006, Foster 2012). Privately owned spaces with public access (e.g. shopping malls) as well as publicly owned spaces with private control

(sidewalk cafés) are receiving attention (Hess 2008, Lehavi 2008). Another major type is gated communities (Foster 2012). Others are focusing on how established business communities can cooperate and reorganise to attract more customers (Takatsu 2013, Lehavi 2008).

The topics discussed are usually problems with care and regeneration of the resource of the commons. Free riders and over-consumption of available resources are as prevalent in urban commons as in old style “open access” commons. But other types of studies begin to appear. For example: the concept of urban commons is seen as useful for feminist thought (Łapniewska 2014).

But exactly how can we characterize the “goods” that the urban commons provide (or could provide). Using the classification and discussion above, we see that there are many types of club goods: the gated community, the business improvement district, and the shopping mall. Within the boundaries of the club the task is to provide members of the gated community with security (above the level provided by the ordinary police) and care of common areas within the gate. The members of the business improvement district have similar objectives but focus in particular on attracting customers. For retail shops customers is the basic resource.

- A suitably delimited area may allow border control. Then it may be a venue for the production and distribution of club goods. Urban parks or plazas may be examples of this.
- A suitably organized cooperative can produce goods from which its members have an equal interest in obtaining utility.

Urban commons with fixed locations

The resources of an area may be an openly accessible space like in an urban plaza. In this perspective, labelling a large urban space for “*Operaallmenningen*” makes sense. But in addition to the squares and plazas that label themselves as commons (“allmenning”) there are several other instances of areas with “shared resources in which each stakeholder has an equal interest.” Even disregarding all roads, streets, subways, tramcar lines and railroads, there are many left. Communication infrastructure falls within the definition, and are probably the most important part of the urban commons. But they need a study by themselves (Frischmann 2012).

Here we shall briefly comment on urban common resources like

- The grounds and common areas of housing cooperatives (“borettslag”)
- The common areas of shopping malls
- Foot paths through urban built areas
- Sidewalks and sidewalk cafés
- Playgrounds (e.g. used by kindergartens)

The land ownership question is typically organized differently for these cases.

In Norway the land on which the housing cooperatives are located are owned by the cooperative, but any decision on selling or buying land needs a 2/3 majority in the general assembly of the cooperative organisation. The stakeholders here are obviously the members of the cooperative.

Shopping malls are typically owned by a real estate company that leases the premises to shopkeepers. The common areas of the shopping malls are therefore the private property of the real estate company. The owners are today allowed to control access and to some extent also behaviour within the mall boundaries, but both the shopping public and other visitors as well as shopkeepers may have interests that are not represented in the management today. The stakeholders here are obviously the owner of the building and the owners of the shops within the mall. But the largest group of stakeholders are the shoppers, any person who might visit the shopping mall. The shopkeepers may even consider the shoppers as a commons resource in which they all have an equal interest. Both shoppers and shopkeepers may want a management of the mall providing open access for all persons on an equal basis.

The ground of the many walking paths built through housing estates or other densely built areas have a mixture of public (municipal) and private ownership, including housing cooperatives. Reusch (2012, 209-211) discusses the status of right of way in urban areas as defined by the act on outdoor life (LOV-1957-06-28-16). Landowners cannot regulate usage exclusively but no clear rules about management have evolved. Reusch (2012, 470) recommends that the lawmaker prepares for more conflicts about the public right of way as urbanization and densification of buildings develop. The stakeholders here, the people living near by the paths and the people wanting to use the paths, are, similar to shoppers in shopping malls, unorganised.

Sidewalks are typically owned by the municipality or by the owner of the building bordering on the sidewalk; often they may each own a part. The cases where the owner of the house may occupy the sidewalk for a café or for any other purpose is not clear to this writer. The stakeholders of the sidewalk commons are the pedestrians. In addition, just like for users of walking paths and shopping malls it is difficult to see them organised in any useful way.

The grounds used by kindergartens and playgrounds of urban housing areas are usually owned by the municipality. They are usually accessible for and used primarily by the local public. A commons organisation based on the local public seems feasible.

It would seem that land ownership is not a big issue in urban commons. This changes if one introduces proposals for changing the use an area. If urban growth threatens a park or a public foot path one will usually see spokes persons for the affected groups protest. The conflicts generated by this are today resolved by political decisions based on preparations produced by the planning system. The mandatory stakeholders are the landowners. According to the planning and building act, the local public shall be consulted. But the procedures for doing so are vague and often minimalized. One reason may be the lack of organisation among the “commoners” affected by the proposed changes in land use.

Analysing the areas as a form of commons might suggest ways of constructing management rules that caters to the interests of more stakeholders than the landowners. But the significant lack of organisation among the commoners of the various resources needs careful consideration in construction of rules and regulations.

Urban commons based on production organisations

The organisation of the commoners, either as producers of the goods, or as consumers of the goods, (and occasionally as both) is the key to understanding the urban commons. Moor (2013), (also Moor 2015, 161-168) notes a remarkable growth in the number of cooperative organisations (or associations or foundations) providing goods like energy, water, health care, carpooling, food, insurance, and infrastructure like open source software. The public organisations providing some of these services (or goods) are seemingly well working in Oslo today. The questions we can

raise are if the principles of the commons organisation can improve on the current system of representing the interests of the stakeholders.

For many types of urban services where profit making does not work one has observed voluntary citizen organisations provide the service. These organisations function as long as there are enthusiastic leaders. Once they are exhausted the organisation withers away. One way of approaching this for urban commons might be to study what it would take to create sustainability for such production organisations.

5. Concluding

As society and culture change property rights have to be renegotiated continuously. In doing so, the level of specification of rights tends to grow. The greater specification allows problems to be solved. The solutions to old problems fade into the taken for granted and new problems take centre stage. The dominium plenum solution to internalising the externalities could not accommodate the more complex world of modern urban democracies.

Processes for obtaining goods from owning and exploiting resources in common or jointly have always generated certain problems. Only recently have scholars realized that the problems of free-riding in provision and consumption, well known from the study of traditional commons, return in new guises in modern industrial societies. Technology (radio waves, internet) and knowledge (biodiversity, ecosystem services) produce goods that require collective action in agreeing on common rules for efficient provision, sustainable exploitation, and just distribution. The new goods do not replace the old ones provided by nature (forest, pasture, wildlife), but appear as layered on top or beside the old goods. Also in urban society, the rights of common can be seen as layered on top of areas with specific characteristics. However, the context of urban reality creates a more complex problem of governance.

If we can see no continuity between the old well working commons and the new commons appearing in complex urban societies, the commons as a social and legal reality will have to be reinvented by trial and error. Fortunately, the scholarly study of the commons promises better approaches.

Acts and regulations

LOV-1957-06-28-16 Lov om friluftslivet (friluftsløven) [Act of 28 June 1957 No.16 Relating to Outdoor Recreation. <https://www.regjeringen.no/en/dokumenter/outdoor-recreation-act/id172932/>]

Reguleringsbestemmelser for Bjørvika - Bispevika – Lohavn, Oslo kommune, Byrådsavdelingene, S-4099, 15.06.2004, <http://innsyn.pbe.oslo.kommune.no/saksinnsyn/showregbest.asp?planid=50630152>

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