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Creative industries, spatiality and flexibility: The example of film production

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At the beginning of the 1990s, film production in Sweden was heavily centralised in Stockholm. Today, film production in Sweden has decentralised to include three regional film production centres located far from the capital region. The article aims to understand this decentralised location pattern, focusing on the aspects of flexible film work and film workers. The implications of the regionalisation of film production in Sweden for film workers and for regions are explored. Labour and work practice flexibility create important conceptual lenses through which the investigation and analysis were developed. The major empirical source of data was a questionnaire survey of film workers. From the empirical data, different structures of the film industry in the main film regions are discussed. The results show that the geography of film workers diverges from that of film work, reflecting spatial mobility among film workers and willingness to be involved in projects some distance from their county of residence. Multiscalar relations in film work and film projects appear to be the organisational norm within film production. The results also show that it is difficult to generate sufficient income from film production, and most workers are dependent on incomes from sectors outside the film industry.

Keywords: *creative industries, feature film production, film work, flexibility, Sweden*

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The geography of film production

At the beginning of the 1990s, film production in Sweden was heavily centralised in the capital city of Stockholm. Fifteen years later, the geography of film production in the country has changed fundamentally. Less than half of Swedish films are produced in Stockholm while one-third are produced in the Västra Götaland region, particularly in the small town of Trollhättan. This major change in the geography of film was the starting point for the research underpinning this paper.

Film production is an industry in the creative sector. 'Creative industries' is a relatively recent label meaning 'the conceptual and practical convergence of the creative arts (individual talent) with cultural industries (mass scale), in the context of new media technologies' (Hartley 2005, 5). The creative industries bridge what is conventionally regarded as a divide between the cultural and economic spheres of society. The duality is significant in relation to policy. Cultural policy in Sweden has developed through the Social Democratic political ideology of a strong state. More recently, the cultural or creative sectors have also come into focus regarding regional policy measures for economic growth. In a previous study of film and regional development we have investigated how this geographical dispersal of film production in Sweden has come about through a combination of national and regional policy measures (Dahlström et al. 2005a).

Creative industries have attracted growing interest in both research and policy in recent years (Department of Culture, Media and Sport 1998; Florida 2002; Kunzman 2004; Power & Scott 2004; St. meld. nr. 22 2004–2005; OECD 2005; European Commission 2006; Markusen & Schrock 2006). The background is that culture has increasingly been acknowledged as an important integral factor in regional economic growth through different factors, including employment growth and export earnings.

The development of the post-modern economy as well as the post-modern trend in research have brought culture and creative arts into focus (Kumar 2004). As Kunzman (2004, 383) puts it: 'There is a friendly virus, in the beginning of the twenty-first century. This friendly virus has affected the community of planners and could help us to survive as a creative profession. The virus is called creativity, sometimes creative city (Landry 2000) or creative class (Florida 2002)'.

Some studies argue that the cultural sector's ability to generate economic growth is more limited than the widespread interest in this sector for regional development may indicate. The labour market for cultural work and the possibility of earning sufficient income from work in the cultural sector is limited. Many cultural workers are engaged in part-time jobs and on short-term contracts (Beyers 2002). The experience from feature films, which is the theme of this study, shows that whereas projects in this sector have the potential to generate revenues, the industry is extremely uncertain and many films make no profit.

This article explores the implications of the regionalisation of film production in Sweden for film workers and for regions. How can we interpret the geography of film production in Sweden? What resources and possibilities has the regionalised film sector brought to regions and individuals? Our exploration of regionalised film production in Sweden involves conceptual discussions and empirical analysis. The conceptual discussion focuses on multiscalar and flexible forms of film production, and the source of data

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for empirical analysis is a questionnaire survey of film workers in Sweden.

Our definition of film is inspired by O. Guerpillon,[1] who argues that the basis for the production of a film is the filmmaker's wish to tell a story. Film, as we understand it here, is clearly part of the arts and cultural sector. At the same time, film is an industrial activity that takes the form of individual, complex projects that need major funding and a large number of people and occupations coming together. We focus on the production of *feature films*, including television dramas, which are large and complex projects, with sizeable economic budgets and many film workers (Dahlström et al. 2005b). The film industry is organised into production chains with different stages: development, shooting and post-production. In this study we do not consider distribution and exhibition, which may be considered as the fourth stage of a film production project (Pratt & Gornostaeva 2005).

The next section in this article starts with an outline of research on creative industries and raises a question about multiscalar production systems for films. It also presents the geography of film production in Sweden and its recent changes into a more decentralised pattern. To be able to understand the regionalisation of film, an understanding of the organisation of film production is provided in the section on the flexibility of film production and film work and how these take multiscalar forms. This conceptual lens of a multiscalar flexible organisation of film production is the point of departure for the analysis presented in the fourth part of the article. Finally, we conclude with the results showing the decentralised location pattern of feature film production in Sweden and what the regionalised film sector means to regions and individuals. We discuss how these results may inform the conceptual discussions in the article.

Creative industries and the geography of film production

Gibson & Kong (2005) identify four approaches to geographical research in the creative industries. First, a sectoral approach, which means that studies are limited to a number of industrial sectors defined as cultural or creative sectors. Such studies tend to vary in the exact definition of which sectors belong to the creative industries, and hence the results from different studies are difficult to compare. Power's (2003) study is an example of such a sectoral approach dealing with cultural industries in the Nordic countries. He concluded that the sector employed slightly less than 10% of the workforce in these countries. The second approach looks at cultural industries from the perspective of the labour market and the organisational forms of production. This approach, which will be developed more extensively in the third section of this article, is the one we adopt in our analysis. The third approach, the creative index approach, distinguishes a new social group – the creative class – which is primarily employed in the creative industries but also in creative occupations across the wider economy. The convergence of formats approach is the final approach, and focuses on functions centred on the digital medium and manifested in large economic organisations and networks of cooperation.

In geographical research on the creative industries, ideas of localised production systems have been dominant themes. Recurrent reasoning behind such location patterns reflects arguments about the benefits of proximity for communication and exchange in network relations and about the qualities of particular places. These places have primarily been discussed in terms of urban milieus and major city regions (Scott 1997; Drake 2003). Studies of geographically concentrated cultural industries may interpret this as the formation of clusters and from this concept analyse how the clusters relate to the regional development of sectors and industries. Included in this understanding is a focus on interactive communications and learning between firms. Other studies of concentrated location patterns focus on the importance of external economies, including local supply of a skilled workforce (Basset et al. 2002; Bathelt & Boggs 2003; Turok 2003). There is also literature questioning what is assumed to be excessive stress on the requirement for physical proximity in interactive and creative relations and interactions. Hess (2004, 174), for example, argues that geography has tended to use 'an "overterritorialized" concept of embeddedness'. Grabher (2006), in turn, develops this line of argument and links the overemphasis on locality to Tönnies' conceptual pair of *Gemeinschaft* and *Gesellschaft*. Grabher argues that the discourse of local networks within economic geography often exaggerates the importance of strong ties and in so doing builds on the idea of the social cohesiveness of a village community (*Gemeinschaft*) rather than the diversity of a city (*Gesellschaft*). At the same time, strong local ties within networks have been contrasted with weak global ties, which Grabher claims has resulted in a situation where the simplistic view of regions as innovative isolated islands is continuously reproduced.

Coe (2000) develops such arguments for a study of the film industry in Vancouver, where he concludes that the film industry depends on the ability to mobilise relations continuously and simultaneously on different geographical scales, from the local to the international. This is an important point of departure for our analysis of the geography of Swedish film production and film work. The hypothesis is that the film industry is organised in networks on different nested scales. Thus, observed spatial co-locations of firms and organisations in creative or cultural sectors do not, as such, prove the existence of regionally contained production systems. This is a question that needs to be investigated empirically. From our analysis in the following it will become evident that the localised pattern of film production in Sweden involves systems of flows and relations over large distances.

Film production is not geographically contained to a local, regional or even a national system. Instead, film production is integrated into an international and globalized system (Miller et al. 2005). Consumption of films has for a long time taken place in an international market, where in the Western world films from the United States particularly have dominated. This domination after the Second World

War encouraged other countries to support domestic film production. Such support became part of national cultural policies aimed at facilitating the screening of stories of domestic life and society in the native languages of the respective countries. In Europe, the efforts have also resulted in cross-national collaborations, in which France and Italy were pioneers. Co-production takes place in different frameworks from bilateral agreements to the typical pattern of each film project team seeking co-production partners wherever possible. There is a clear internationalisation trend of film production in this respect, and the number of internationally co-produced films in Europe increased by 25% between 1997 and 2002 (Lange & Westcott 2004, 97). The Nordic countries have a unique co-production opportunity through the Nordic Film and TV Fund, which is based on collaboration between all five Nordic countries. This fund is of great importance to the film industry in these countries (Dahlström et al. 2005b). The fund is of considerable size and invested almost Euro 7 million in 2002. In comparison, the Council of Europe's programme Eurimage, which includes 32 active member countries, provided a total of Euro 18 million to support production (Lange & Westcott 2004, 117). The long history of international collaboration and co-productions in film work in the Nordic countries has been stressed by Hjort (2005).

As a result of technical developments and reduced costs in travel and communication, film production has become more mobile. This means that there is increasing international and intranational competition for film projects. The ways to compete include a range of factors such as low labour costs, tax incentives or reimbursements of some of the costs of shooting films, and access to film funds (Miller et al. 2005). In the competition for film projects, film commissions are important actors, functioning as marketing agencies for their regions or countries. The aim is to attract all types of film production to the country or region where the commissions are based (Dahlström et al. 2005b). The increased global mobility of film projects is often termed 'runaway film production'. Miller et al. (2005) see this as an important element of a new international division of cultural labour. They use the concept particularly with regards to the commercial Hollywood film projects in what they label the *laissez-faire film industry*, where there is no state investment in training for the film sector or for the production of films. European film, on the other hand, is produced within a system that they label the *dirigiste film industry*. This system encompasses major state support through cultural policies both for the training of film makers and workers and for the production of films. These two systems can be seen as ideal types. However, there are elements of public support for film production within the laissez-faire system and of market-related activities within the dirigiste model. Miller et al. (2005) make the point that the Hollywood film industry includes major state investment in training at film schools, production commissions, and major diplomatic negotiations over distribution and exhibition arrangements. A more direct example of public support for this system is given by Hedling (2006). He argues that the acceleration of runaway production over recent years has forced the 'old' core regions of film production to reduce the loss of production to other regions. He cites the Mayor of Los Angeles, who announced a plan to introduce tax reductions and subsidies for security services to reduce the costs for film producers in the region. At the same time, the intensified regional competition for film projects within countries with the dirigiste model is clear, something that the increasing number of regional film commissions bears witness to. On several occasions in the course of our research we have encountered producers in Sweden who indicate the necessity to seek out the location that offers the best funding, taking into account other factors for the film project as well. To quote one producer: 'We are a very unfaithful lot. But there is no alternative if we want to produce the films of our choice.'

Decentralisation of film production in Sweden

During 2005 we conducted a study of film production and film policy in Sweden involving fieldwork in four locations. We interviewed 34 stakeholders positioned in different roles in the Swedish film industry, policy makers, and officers in local, regional and national authorities. This research was part of a Nordic-wide study that generated findings and further research questions regarding the geography of film production and film work and concerning the policy of regionalisation (Dahlström et al. 2005c). There was a clear knowledge gap concerning the geography of film production and film work in Sweden. However, the lack of data on this type of information made it necessary to conduct a questionnaire survey of film workers in Sweden. This was carried out in the early autumn of 2006 and is described further in the following.

As described so far in this article, the geography of film production has changed dramatically in Sweden during the last 15 years. Traditionally, Stockholm has been the major node for film production in the country. Stockholm is the capital and major urban region of Sweden. The concentration of film production in Stockholm is understandable for a number of reasons, including the agglomeration of the national institutions for culture, such as the national theatre and opera, the major educational performing arts institutions, and resources such as studios and specialised expertise. Although these structures remain in Stockholm, the concentration of film production in the capital has dissolved over a period of less than 20 years, and a pattern with three additional main sites for feature film production has appeared. The three new film centres have their centres in Luleå in Norrbotten County, Trollhättan in Västra Götaland, and Ystad in Skåne (Fig. 1). The reason for this decentralisation is mainly policy-driven through a combination of top-down national film policy and bottom-up regional policies, but there are also ingredients of local and regional film competence and entrepreneurship. While the national film policy is part of the *cultural policy*, the regional film policy is part of a wider *regional development policy* encompassing both the cultural and economic development fields, with an emphasis on the latter.

In 1997, *regional resource centres* for film and video were introduced as part of a national policy to stimulate and

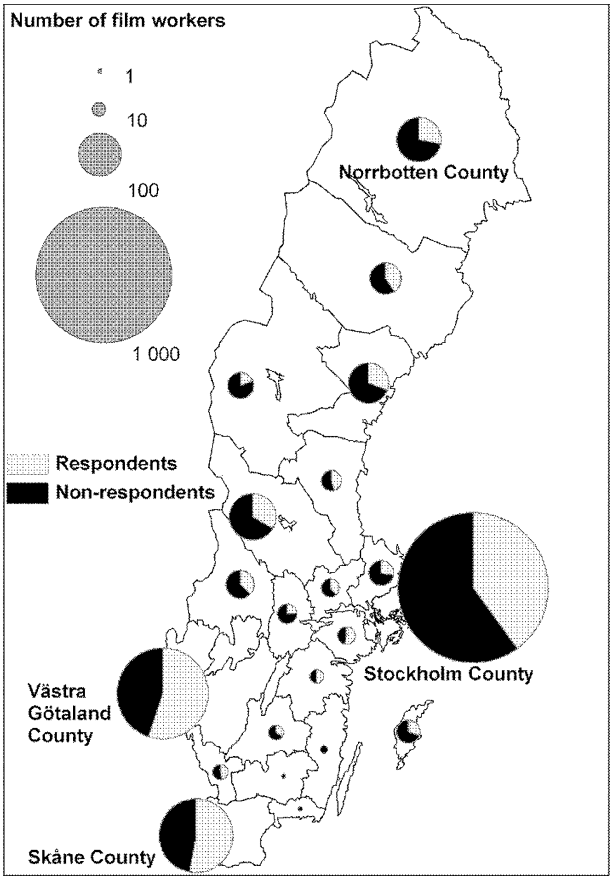

Fig. 1. Residency of film workers in the questionnaire survey. Source: Questionnaire survey.

support film-related activities, particularly for children and young people. After a few years, all regions of Sweden had their own regional resource centre. In 2000, three of the regional resource centres were selected as *regional production centres* for film: *Filmpool Nord* (in Norrbotten), *Film i Väst* (Västra Götaland) and *Film i Skåne* (Skåne). This meant a small amount of extra national annual support (SEK 1 million (SEK 6.85 = USD 1) per year to each centre), in addition to the support the regions already received for their regional resource centres. The specially directed resources to the three regions were intended to encourage a long-term commitment to feature film production in these centres. The first two centres were already involved in feature film production, and it was argued that there was a capacity for this type of activity in Skåne as well. Matched funding from local and/or regional authorities is needed for the regional production centres (Dahlström et al. 2005c). The funding has increased considerably and in 2004 reached over SEK 51 million in total for all three production centres, and in addition Filmpool Nord and Film i Väst received SEK 6 million and 4 million respectively through the EU Structural Funds (Svenska Filminstitutet 2004). The types of financial support discussed so far in this article are aimed at specific regions. In addition to this, and considering the central state's funding, there is financial support available to particular film projects regardless of where the projects will be developed. The support is received if the Swedish Film Institute considers the film project to be valuable. Thus, national public funding is administered by the Swedish Film Institute and includes advance allocation awards. Regional film funds receive allocations from regional and local tax funds that are administered by the regional production centres. The regional resource centres mainly support short films and documentaries but can also allocate funding to feature films. Although Swedish feature films may receive international, national and regional public funding, each film project normally has to raise at least 50% of its costs from private capital.

Regional funding is made conditional on various factors, with the aim of safeguarding regional benefits from the public investment in each film project. The conditions vary between the three production centres, but include regional commitments such as spending in the region that is higher than the public investment, recruitment of regional staff, shooting in the region, and ensuring that the production company runs a staffed office in the region. Regional funding often takes the form of 'the last million' that makes it possible to realise a project, but it can be as high as one-third of the total budget of the film (Dahlström et al. 2005a).

Thus, our study on regionalisation of film production in Sweden generated insight into the policy system concerning the film sector and how this has been an important factor behind the radically changed location pattern of film production. However, although the research provided a picture of the location patterns for activities, it could not reveal the implications of this geography in more qualitative terms. We had no reliable sources on the geography of film workers, nor could the aforementioned project show if and how the location of film production mattered for the organisation of projects or how the geography of the networks evolved. These investigations into the geography of film workers, the geography of film work and the organisational modes of film projects were important questions for the questionnaire survey analysed in this article.

The flexibility of film production and film work

In our endeavour to understand qualitatively the regionalisation of film production in Sweden, we take a particular interest in the elements of multiscalar networks and flexible production forms. We have elaborated on the concept of multiscalar networks; in the following, we define how the concept of flexibility is employed in this study.

The notion of flexible specialisation (earlier developed in Piore & Sabel 1984) is central to the discourse on the economic transformation of an economy from Fordism to post-Fordism, being a development that also has brought sectoral shifts in which service-, information-, communication-, and design-intensive industries have extended their roles (Tonkiss 2006). This idea of flexibility as an essential

signifier of the recent economic transformation has produced a large and rich literature in which the aspect is discussed from many perspectives, involving volume output, design of products, employment, working practices, machinery, and organisation forms (Dicken 2003, 110). The organisational forms and the production in the creative and cultural industries include several aspects of flexibility (Lash & Urry 1994; Morgan 2005). Creative industries are dominated by small businesses, which have employment flexibility and flexible working practices. These sectors have a long tradition of flexible forms of employment (Haunschild 2007). In the film industry, the production companies, being the critical actors initiating and leading film projects from start to finish, are often very small. This is the situation in Sweden and in many European countries. Table 1 provides information on the number of production companies in 10 countries in Europe, including Sweden. The figures show that as much as 80–100% of the production companies in these countries produced only one film in 2005 (European Commission 2006, 228).

It is easily understood how this structure of small production companies using a project form to produce films must be met by a flexible labour market. Monastiriotis' (2005) elaboration of labour-market flexibility forms the backdrop from which we have defined the three indices for flexible work in film production shown in Table 2. These three indices consider film workers' strategies and experiences of action (task flexibility and market flexibility), relations (personal contacts and continuity in film work) and responses (multiscale and spatial flexibility).

Action refers to the different occupations of individual workers. This considers how individuals carry out different types of work tasks in film production, how film workers find employment in other sectors outside film, and how firms run by the respondents sell their services to film projects and to other sectors.

Relation refers to the film workers' relations and social capital that may bring jobs and income. This concerns the way in which employment in film projects depends on personal networks and contacts. According to a study in the UK, the average length of the shooting phase of a film project is approximately seven weeks. In this short period, workers are engaged in special tasks and the engagement can be as short as a single day (Blair 2003, 685). Team lists for feature film projects may involve many people. In our selection of team lists presented in the section 'Spatial flexibility', the most extensive involves more than 100 people.

Table 1. Production companies and their film productions in selected European countries in 2005.

Country	Number of production companies	Number of companies producing not more than 1 film	Percentage
Belgium	55	50	90
Czech Republic	55	50	90
Estonia	18	18	100
Finland	30	25	83
France	156	125	80
Greece	100	90	90
Italy	422	325	77
Spain	160	130	81
Sweden	*56*	*52*	*92*
UK	217	186	85

Source: European Commission (2006, 228).

The tendency of short-term duration of film projects and short-term engagement of different workers for specialised tasks in these projects makes the worker vulnerable to the stress of almost constantly having to receive new contracts for work. Periods of unemployment are a common situation (Scott 2000, 23). This is problematic from the perspective of the film workers since it brings economic problems and because it may mean 'damage to reputation' and the status of the film worker in the market for film jobs (Blair 2003, 685). In the empirical analysis below, the proportion of workers that have received unemployment benefits is investigated.

Grabher's (2002; 2006) conceptual development of the project ecology, based on studies on the advertising and software industry, contains concepts also relevant to the film industry. The notion of temporality, the stress on *interpersonal* relations rather than on *interfirm* organisation, the stress on reputation, and the intertwining of human capital and social capital are fundamental, we think, also for the film industry. To acquire the ability to behave as a 'member' is critical (Grabher 2002, 209).

A flexible labour market may be stressful for film workers and there is a growing debate about the downside of flexible work and flexible labour in the cultural industries (Tonkiss 2006). Blair et al. (2001) studied a film production project over a 12-month period. In their discussion of the quality of work in the film sector and its employment forms they criticise the view of creative/cultural work as quality work. Their result 'does not fit with . . . the image of work in the film industry as glamorous and attractive' (Blair et al. 2001, 182).

Responses refers to how film workers respond to the irregular spatial pattern of possibilities to work in film production. Film production has always included elements of spatial flexibility. The location of a film shoot varies with specific outdoor scenery or settings and the use of certain studios. In what ways are film workers sufficiently mobile to exploit film work opportunities? How are film work and film projects multiscalar? In terms of our empirical data we will describe the extent of workers' engagement in film projects away from home.

The conceptual ideas outlined on the project form and flexible work in multiscalar structures and relations constitute the points of departure for our exploration of the results from the questionnaire survey among film workers in Sweden. The aim is to understand the character of film work in the regionalised film industry in Sweden.

Film work in Sweden – spatiality and flexibility

In the early autumn of 2006 we carried out a web-based questionnaire survey of all film workers in Sweden. The survey was made in continuous cooperation and discussions

Table 2. Conceptual idea of project form and flexible work in film production.

Aggregate indices	Detailed indices/operationalisations
Action – Functional and task flexibility	Different occupations and work tasks in film projects. Employment in different film sectors and outside the film industry. Firms with markets in different film sectors and outside the film industry.
Relations – Project form and temporary flexibility	Employment in film work through personal contacts. Unemployment benefits.
Responses – Spatial flexibility	Work in several locations and outside the region of residence. International film work. Multiscalar relations.

Source: Inspired by Table 1. Indexes of Labour Market Flexibility in Monastiriotis (2005, 456).

with the Swedish Film Institute and with the aid of the regional resource and production centres. This collaboration was a prerequisite for a successful compilation of a list of film workers in the country as close as possible to a complete register. We are convinced that active collaboration by the Swedish Film Institute, and the fact that the questionnaire was electronically distributed by them, contributed to a good response rate. The method is described in detail in Dahlström et al. (2007), but the key aspects of the survey are outlined here.

In this survey, a film worker is defined as someone who has had paid employment in at least one film production since 2003. This work could be on a short film, novella, documentary, feature film, or TV drama. The compiled list of film workers to whom the questionnaire was distributed was based on two main sets of data: the Swedish Film Industry Catalogue,[2] administered by the Swedish Film Institute and containing details of over 1500 film workers, and information from the regional resource and production centres. Thus, we have followed the conventional definition of film workers as developed in the film sector. This means that we do not include actors or actresses among film workers.[3] Our compiled list of film workers included 2648 individuals who received the questionnaire. A total of 1104 of these replied, yielding a response rate of 42%. As much as 84% of the respondents lived in the four major film production regions of Sweden. The response rates were particularly high in Västra Götaland (55%) and Skåne (53%) while 40% of the Stockholm county film workers replied. Unfortunately, the response rate was low in Norrbotten, where only 30 film workers (28%) replied. This means that data on Norrbotten have to be treated with great care. Fig. 1 shows the geographical pattern of film workers in the compiled list and the response rate for each county.

Film workers have a wide array of occupations. In our questionnaire we defined 67 different occupations as multiple choice alternatives. These were in production, script-writing, directing, photo, sound, technique, scenery, décor, wardrobe, make-up, and post-production. For our analysis we aggregated the 67 different occupations into four major groups according to a hierarchical principle. First, are the core functions of initiating and leading film projects, i.e. the producer, director and scriptwriter. These functions were separated from a wider category of A-functions in a film project with responsibilities for the cultural creation and artistic expression of the film. B-functions are those of skilled film workers across different areas of film work. C-functions are semi-skilled workers of different kinds.

Among the 1104 film workers who responded to the questionnaire survey, 72% had more than one occupation in the film industry, and many film workers had occupations at different hierarchical levels in film projects. If the 1104 respondents are categorised according to their highest function, the distribution is as follows: 484 (44%) in core functions, 315 (29%) in A-functions, 230 (20%) in B-functions and 33 (3%) in C-functions. Approximately 40% of all respondents were women. Women are most frequently represented among film workers with B-functions. With regards to different regions, women are particularly well represented in Västra Götaland and have low representation in Skåne. In the analysis considering regional variations and regional specialisations in the following, we will concentrate on the structure of film work in the four film regions in Sweden. Fig. 2 shows the distribution of the respondents between the four regions and the structure of the film workers in each region considering the scale from core-through A-, B- and C-functions.

Among the respondents, 50% worked in feature films in 2005, and such film projects provided 75% or more of the income of 25% of the respondents. This group, with major income from feature film, differs from the total responding population. Looking at the geography, approximately 30% of all film workers in Stockholm and Västra Götaland derived a major part of their income from feature film production, which is a higher share than the national average of approximately 25%. However, for the respondent group as a whole, full-time employment in feature film production was rare. The capability to develop different skills and to organise a mix of different sources for incomes appears to be a critical requirement for making a living as a film worker. Having defined three aspects of the flexibility of work to meet this situation (Table 2), in the following we will investigate these different aspects and how they vary regionally.

Functional and task flexibility

Flexibility, considering the multiplicity of tasks in film work and the multiplicity of sectors and markets for generating income, is strongly evident in the data. Looking at the whole group of respondents, more than two-thirds of the film workers had more than one occupation; one-third earned income in 2005 from work in film *and* work in sectors other than film. Among the film workers who ran companies, more than 50% had additional markets outside the film sector.

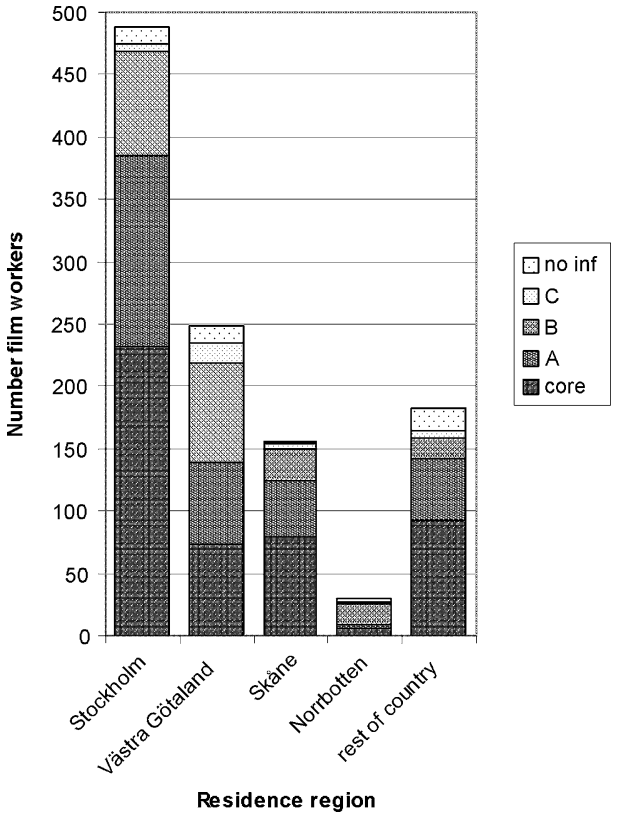

Fig. 2. Survey respondents categorised according to their county of residence and occupational film functions. Source: Questionnaire survey.

The results indicate a higher degree of specialisation in the Stockholm region compared to the other film regions in Sweden. A comparatively lower flexibility among its film workers is evident in the data through fewer occupations among individual film workers, and a smaller proportion of film workers and firms in sectors outside film. Västra Götaland diverges from the average because firms run by the respondents operate in many markets. The markets outside film involve a large number of specialities, including theatre, music video and music industry, journalism, and photography in different sectors, exhibitions in the arts and other areas, lecturing, education and consultancy, advertising and marketing, museum work, beauty treatment, make-up and hairdressing, fashion design, interior decoration, and hotel and restaurant work. Skåne is different from the other film regions because of a comparatively large number of film workers who also earn income from commercial film work. Thus, the picture that is generated shows that film workers tend to be simultaneously dependent on income from film work and from work outside the film sector.

It is not clear from the questionnaire survey whether the extensively developed task flexibility is the result of pull or push factors. From the questionnaire replies, we know that more than half of the respondents would have liked to have more film work. This is particularly evident in the smallest film regions of Skåne and Norrbotten. However, at the same time there is a large group that did not want more film work. From the open answers in the questionnaire we know that work in the film industry may be experienced as stressful, with insecure income, irregular working hours, and so forth, and hence some find a mix of film and other work to be a preferable situation.

Project form and temporary flexibility

A clear conclusion from the literature is that workers become involved in film jobs through personal contacts. Our survey shows a marked increase in the importance of personal contacts from the first film job to later film jobs, from 60% to 70% of the respondents. The lower degree of recognition of the importance of personal contacts among film workers in Skåne may reflect the fact that feature film production has a relatively short history in this region and the sector has not yet fully established strong networks of social ties.

The project form of film production means that film work is temporary and that workers have limited terms of employment, frequently as freelancers. In our survey of Swedish film workers, 85% of the respondents worked as freelancers. The picture in the literature of periods of unemployment benefits is also evident in our survey. The proportion of film workers who received unemployment benefits in 2005 was particularly high in Norrbotten (43%) and particularly low in Stockholm (17%) compared to the country as a whole. The national average of 23% of respondents receiving unemployment benefits in 2005 reflects a tight and difficult sector for regular incomes.

Spatial flexibility

The analysis of spatial flexibility of film work is based on two data sources. Besides the questionnaire survey, team lists from four recently produced feature films in Sweden were used. The map in Fig. 1 is based on the county of residence of film workers. We will, however, show that *the geography of film work* differs from this map. Film work frequently entails working far from home. Among the respondents in the questionnaire survey living in Stockholm, almost 17% frequently worked in Västra Götaland and more than 10% had jobs abroad. The flow of film workers between Stockholm and Västra Götaland was both ways, as 15% of the film workers who lived in Västra Götaland frequently worked in Stockholm.[4] The Stockholm region is also an important labour market for film workers in Skåne, who also have considerable work abroad. The net flow of film workers between regions in Sweden means that film workers from Stockholm dominate film production in Norrbotten and make up a substantial proportion of those in Västa Götaland. The film workers in Stockholm and Skåne appear to be particularly spatially mobile, frequently working outside their respective regions. Of all the respondents in the survey, 50% had experienced work abroad, predominantly in other Nordic countries.

To discuss the geography of film production in more detail, we have selected four Swedish films from 2005 and analysed the team lists for these productions. We selected the films with the largest audiences that were co-produced by

each of the three production centres in the country and the one with the largest audience that received no co-funding from a regional resource or production centre: *Pistvakt* (co-funded by Filmpool Nord), *Zozo* (Film i Väst), *Innan frosten* (Film i Skåne), and *Kocken* (no regional co-funding).

Team lists are available in the Swedish Film Database at the Swedish Film Institute.[5] The team lists record each person involved in the production of the film, including the occupation or function of that person. Actors and actresses are not included in this article. In collaboration with the main production company of each of the films and the regional production centres we have added further information to these team lists. We were able to establish the county of residence, or the countries of overseas team members, of almost all individuals recorded on the lists. In addition, we categorised the occupations of the team members according to the same system as that of the web survey, i.e. in core-, A-, B-, and C- functions (core- and A-functions are aggregated into one category in Figs. 3–6).

The three films with regional co-funding, and to a lesser extent also the fourth film (*Kocken*), very clearly illustrate the complexity of a film project. The first three films mentioned had between 93 and 105 team members each, while *Kocken* had a team of only 23. The number of different occupations listed in the team lists varies between

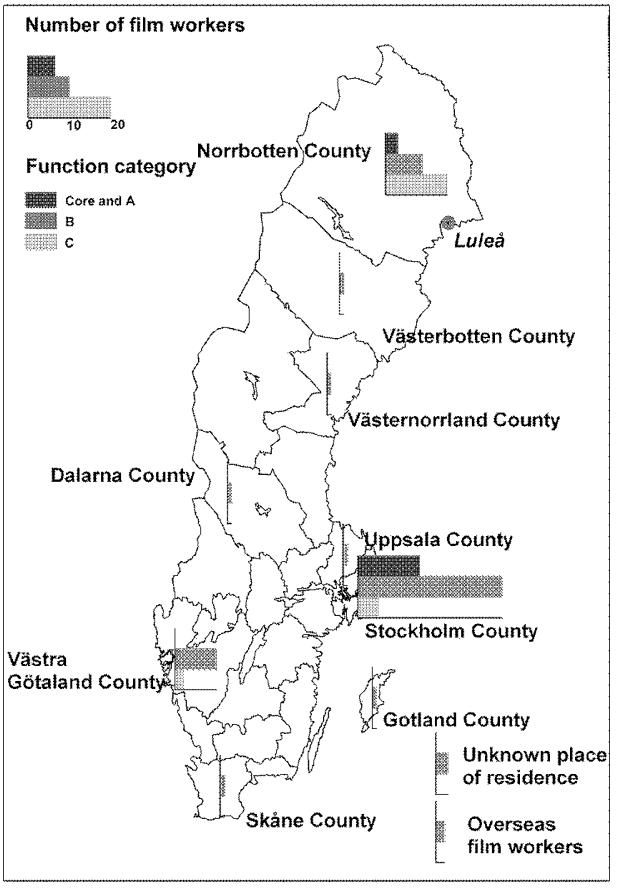

Fig. 3. Residency of film workers in *Pistvakt,* a film produced in Luleå. Source: Team list.

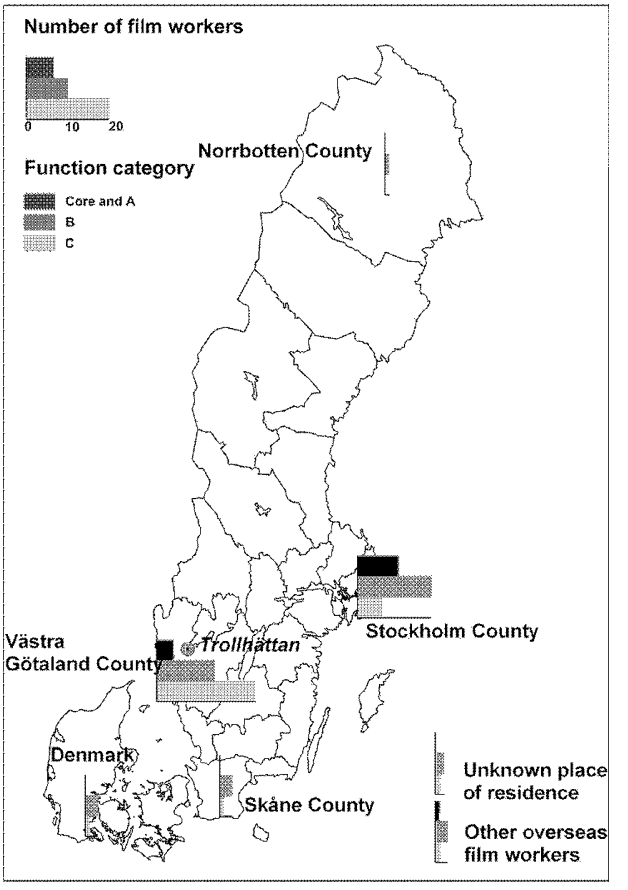

Fig. 4. Residency of film workers in *Zozo*, a film produced in Trollhättan. Source: Team list.

24 (*Kocken*) and 55 (*Innan frosten*). Each of the four films had examples of individuals that had more than one function in the same film. With the exception of *Kocken*, where all but two team members lived in greater Stockholm, the complexity is even deeper if the geographical dimension of the team members' county of residence is added.

The film *Pistvakt*, produced in Norrbotten, was a Swedish production with no international co-funding apart from some money from EU Structural Funds. This film included team members from nine counties in Sweden, in addition to a member each from Finland and the Netherlands. As may be expected due to Filmpool Nord's co-funding, a substantial number of team members lived in Norrbotten County: just over 25%. However, approximately half of the team were people who lived in Stockholm County but who were working away from home on this project. This indicates that the resident number of film workers in Norrbotten County is somewhat limited and makes it necessary for film projects in the region to 'import' staff from further afield, not least from the traditional stronghold of Swedish film – the capital region.

Zozo (produced in Västra Götaland) and *Innan frosten* (produced in Skåne) are both examples of international co-productions, something that is evident in the composition of the team lists. In the same way that the Swedish regional

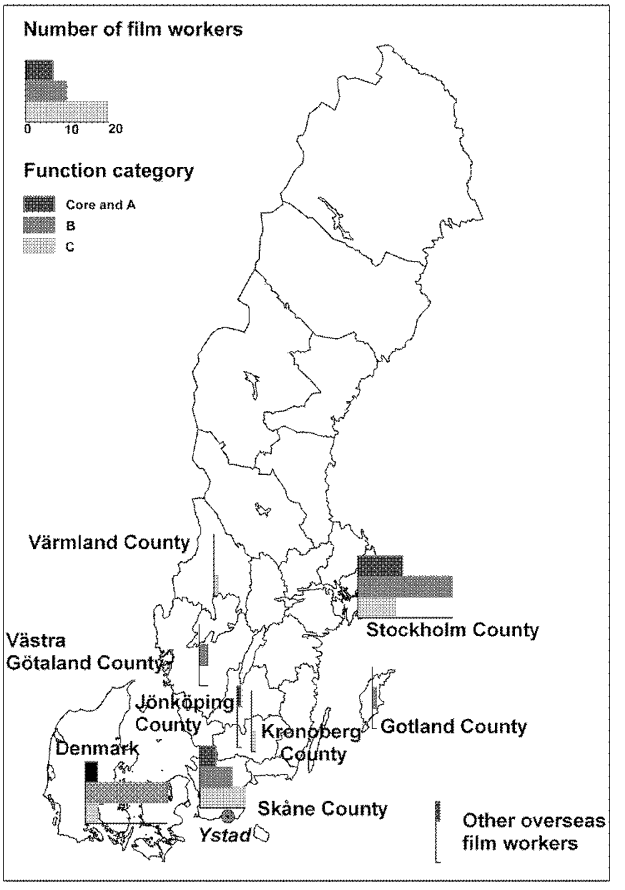

Fig. 5. Residency of film workers in *Innan frosten*, a film produced in Ystad. Source: Team list.

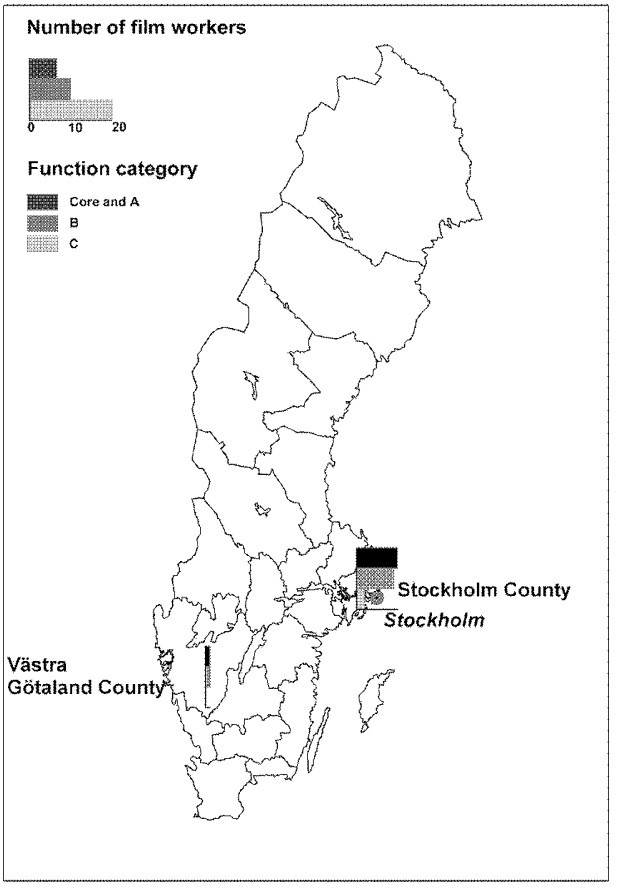

Fig. 6. Residency of film workers in *Kocken*, a film produced in Stockholm. Source: Team list.

production centres provide conditional co-funding for films, other co-producers may also attach conditions to their financial input. The types of conditions may include rules about where parts of the film are shot and stipulating that the teams include film workers from the regions or countries that contribute funding to the project. The team that produced *Zozo* included film workers from four Swedish counties in addition to members from Denmark, Lebanon and Scotland. In all, 45% of the members of the *Zozo* team lived in Västra Götaland County, which reflects one of Film i Väst's conditions for co-funding. Approximately 37% of the team lived in Stockholm County. The relationship between these two largest groups of Swedish 'home counties' for film workers is in line with the larger pool of film workers resident in Västra Götaland (Fig. 1).

For *Innan frosten*, the team list was strongly influenced by the close proximity of Skåne to Denmark, particularly the capital region of Copenhagen. Approximately 20% of the team members were Danish. This international co-production included Danish, German, Norwegian, and Finnish, as well as Swedish funding. In addition to the large Danish contingent, the team list included a German member and film workers from seven Swedish counties. Over 20% of the team members were resident in Skåne while over 40% were film workers living in Stockholm County.

Thus, from the analysis of the questionnaire survey and the team lists it should be clear that the *geography of film work* (Figs. 3–6) diverges from the *geography of film workers* (Fig. 1). The stronghold of film workers in Stockholm is not proportionally reflected in film production and therefore not in film work in this region. Stockholm film workers are present in film work in all three regional film production centres in Sweden. The residential geography of the persons in core functions (aggregated with A-functions in Figs. 3–6) further emphasises the strong influence of Stockholm's film workers on the development of Swedish film, regardless of where in Sweden the projects are located. The core functions are performed by three to five individuals in each of the film projects. All but two of these persons lived in Stockholm; the other two lived in Denmark.

The spatiality and flexibility of film work and film production

Our analysis aimed to improve the understanding of the regionalisation of film production in Sweden. For this endeavour we have especially considered flexibility of film work and how film projects develop through multiscalar networks (Coe 2000). What resources and possibilities has

the regionalised film sector brought to regions and individuals? We have placed particular emphasis on variations in the development of the main regional film centres in Sweden. Our suggested answer to the question raised in this article about how we may interpret the geography of film production in Sweden is through the conceptual lens of flexibility considering tasks, temporality and spatiality, as defined in Table 2.

The questionnaire survey that generated the major empirical sources for the article was aimed at film workers; hence, the analysis has taken the film workers' perspective. We have also taken a more project-based approach through investigation of the geography of the composition of particular team lists for four selected film projects. Both sources clearly show that the geography of film production and that of film workers are very different. This conclusion relates to the notion of spatial flexibility of film production.

Concerning the geography of spatial flexibility of film production, our survey shows that the 'flows' of film workers to film projects into and from the regions are of varying magnitudes. Stockholm remains the stronghold of film workers in the country, exporting expert labour to film projects in other parts in Sweden. However, in the recent decentralisation of film production from Stockholm, a substantial growth of regional 'indigenous' film workers is also evident, particularly in Västra Götaland and to a lesser extent in Skåne. Västra Götaland exports workers to film projects in other regions, with close to 15% of its film workers frequently working in Stockholm. Skåne, the third largest film region measured in numbers of resident film workers, has developed into a film region more recently. Close to 50% of the respondents resident in Skåne commonly worked outside the region: 20% regularly worked in Stockholm and 20% commonly worked abroad. Unfortunately, we had a low response rate from film workers in Norrbotten, hence the conclusions drawn for this region should be regarded with caution.

Film production, as a creative industry, depends on creative ideas. The generation of creative ideas requires a mix of established relations and new contacts, and a mix of regional and wider networks. This idea is also present among stakeholders in the film industry, and the flow of people coming into the region for particular projects is maintained as an important resource that brings dynamism and knowledge transfer to the film industry. This means that spatial flexibility, the third indicator of flexible film work, is high and to some extent desirable. Thus, the study clearly shows that although film projects are complex networks organised through flexible work and embedded in social structures and relations, this does not make them territorially restricted (Hess 2004).

The main regional film centres are also characterised by functional and task flexibility. This flexibility is lowest in Stockholm. The overall pattern is that film workers in Stockholm have a more focused specialisation in their film work compared to those from the other regions. The minority of film workers in the survey who earned most of their income from feature film production lived in Stockholm and Västra Götaland.

Finally, temporary flexibility is again evident in the survey and it is clear how this leads to the fundamental importance of social relations and personal contacts. It becomes a pressing task to be able to receive continuous income from film work. Again, the Stockholm region seems to be the most robust, and the proportion of workers dependent on unemployment benefits is lower than in the other regions.

What may be concluded from this picture of the spatiality and flexibility of film work and film production with respect to our main question about the implications of regionalisation of film production in Sweden for film workers and for regions? To start with, it confirms the results from other research on cultural work that, although this is a growing sector, only a few manage to derive a stable income base from such activities. Only 25% of the film workers in the survey received 75% or more of their income from film work. Second, it shows that the strong policy of regionalisation of film production has had substantial effects in generating a large workforce outside the traditional Swedish film centre of Stockholm that is integrated in a national and international network for film work. Nevertheless, Stockholm remains the main supplier of critical competence for film projects in different regions in Sweden. This means that income from work in film projects in regions in Sweden leaks out to Stockholm. Further, Stockholm seems to have the most robust workforce with more focused competences and more continuous incomes from film work.

Thus, from the multiscalar and flexible character of film work and film projects, it is possible to analyse the character of the regionalised film sector in Sweden today. Because of spatial flexibility, the number of resident film workers in a region is not a solid indicator of the composition of the film sector. The notion of temporary flexibility illustrates the vulnerability of the sector. As the film sector is organised in project form it has weak mechanisms of continuity for firms and workers. Task flexibility, meaning that film workers have several occupations and incomes from other sectors, can be seen as a necessary strategy for handling this insecurity.

Notes

1 'Filmen som näring och exportindustri'. Unpublished report commissioned by Filmproducenternas Branschkansli in collaboration with the Swedish Film Institute.

2 The Swedish Film Industry Catalogue is an unpublished electronic database made available by the Swedish Film Institute.

3 Our definition of film workers in the survey was based on the criteria that the centres used to compile their own lists of film workers. The criteria for listing in the Film Industry Catalogue are stricter. It is important to note that actors are not included in any of these inventories. However, the latest issue of the Catalogue is two years old so it may contain individuals who are no longer active film workers. Film workers in the Stockholm region tend to register in the Catalogue, and as the Stockholm regional resource centre holds no registry of its own it is therefore likely that film workers from this region are under-represented in our list due both to the inaccuracy of the Catalogue and the fact that it has a stricter selection of film workers that can be included.

4 In the trade there are rumours that some film workers register as residents in the three film regions to be able to be included as 'local' staff in film projects. This is a difficult issue to investigate. Nothing was found in our survey to indicate that such a strategy explains the pattern of film workers working in Stockholm but living elsewhere.

5 http://www.sfi.se/ (accessed December 2006)

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