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Understanding Farmers' Aesthetic Preference for Tidy Agricultural Landscapes: A Bourdieusian Perspective

ROB J. F. BURTON

Centre for Rural Research, Trondheim, Norway

ABSTRACT *Studies of landscape aesthetics based on photographic assessment indicate that farmers have a unique perspective—seeing beauty in the same ordered and controlled arable agricultural landscapes that almost all other publics find monotonous and boring. This paper uses Bourdieu's theory of capital to explore why farmers hold this perspective. Interpretations farmers place on 'tidy' features such as straight lines and evenly coloured fields were explored through a cross-cultural study between Germany and Scotland. Results show how farmers 'read' agricultural landscapes for signs of skilled farming, and how their interpretation is dependent on knowledge of the connection between efficient farming practices and the appearance of forms and colours in the fields. The implications of agricultural landscape aesthetics for the development of cultural and social capital are discussed.*

KEY WORDS: Farmers, landscape aesthetic, habitus, cultural capital, Bourdieu

1. Introduction

Agriculture in Europe has changed considerably since the industrial excesses of the productivist era (Mather *et al.*, 2006; Wilson, 2001). Farmers have been moved by a succession of policy measures from the role of intensive agricultural producers, to that of environmental and social caretakers of the countryside and, more recently, to the additional role of caretakers of the visual appearance of the landscape (Glebe, 2007; Rogge *et al.*, 2007; Tress *et al.*, 2001). In part, this recent change has been driven by the public's aesthetic landscape preferences. Studies of the visual appreciation of landscape have regularly shown that the public holds a very positive image of traditional or 'old fashioned' farming practices (e.g. Daugstad *et al.*, 2006; Karjalainen & Komulainen, 1998; Scott, 2002) and, as a consequence, are often very favourable to farming as a landscape feature (Hall *et al.*, 2004). This has an important economic and social role as the aesthetics of farmed landscapes attract both tourists (Garrod *et al.*, 2006; Lowenthal, 2007; Vanslebrouck *et al.*, 2005) and

Correspondence Address: Rob Burton, Centre for Rural Research, N-7491 Trondheim, Norway.
Email: rob.burton@bygdeforskning.no

in-migrants (Halliday & Coombes, 1995; Paquette & Domon, 2003), thus helping preserve the economic and social vitality of rural areas.

With the growing policy focus on landscape appearance, numerous studies have been conducted into the public's aesthetic preferences, and with relatively consistent results. Preferred landscapes are generally: natural, verdant, forested, traditionally cultural, mixed order/disorder, half-open, and contain water (Brush *et al.*, 2000; Hagerhall, 2001; Kaltenborn & Bjerke, 2002; Nohl, 2001; Van den Berg *et al.*, 1998). On the other hand, the types of landscapes people do not like are generally: urban (built), enclosed, industrial agricultural,¹ or lacking natural elements (Brush *et al.*, 2000; Hull & Revell, 1989; Kaltenborn & Bjerke, 2001; Van den Berg *et al.*, 1998). Thus, although there is some variation, it appears people prefer landscapes that are not entirely natural, but have a strong natural component to them and show variation in form. While mixed cultural landscapes containing farms are often positively evaluated, industrial agricultural landscapes ('blandscapes'—Carlson, 1985) are amongst the least preferred (Kaltenborn & Bjerke, 2001).

An interesting aspect of this consistency is that these preferences are not limited to particular environmental and cultural upbringings. Researchers presenting photographic representations have found similarities between the assessments of rural and urban populations (Kaplan & Kaplan, 1989), Western and Asian cultures (Hull & Revell, 1989; Yu, 1995), within different Western cultures (Herzog *et al.*, 2000; Hull & Revell, 1989), between experts and non-experts (Herzog *et al.*, 2000; Yu, 1995), and where there are differences in demographic variables such as age, gender and income (Tips & Savasdisara, 1986). The conclusion of these studies is often that landscape evaluations are the result of perceptual and judgemental mechanisms which are shared by all humans (Hull & Revell, 1989). This consistency has even led some to suggest there are basic evolutionary reasons for landscape preference that lead people to an instinctive response (e.g. Hagerhall, 2001; Herzog *et al.*, 2000) as outlined, for example, in Appleton's (1975) prospect-refuge theory.

However, research into aesthetic preference has shown one important exception. In virtually every case in which industrial agricultural landscapes are visually evaluated by farmers, researchers find that their preferences differ from those of other groups. Industrial agricultural forms that are the least preferred amongst the wider public—described by Nohl (2001, p. 233) as “the aesthetically most unattractive landscapes”—receive the highest preference ratings from farmers and, conversely, the natural or semi-natural landscapes preferred by others are the least preferred (e.g. Brush *et al.*, 2000; Burel & Baudry, 1995; Rogge *et al.*, 2007; Ryan, 1998; Solvia & Hunziker, 2009; Surová & Pinto-Correia, 2008; van den Berg *et al.*, 1998; Yu, 1995). As McEachern (1992, p. 165) in an ethnographic study of the Yorkshire Dales National Park in the UK observed, farmers' conceptualisation of land produces “an aesthetic which is the very opposite of the pleasure in ‘unspoiled’ landscapes, which provides for the needs of many urban dwellers” (also Burgess *et al.*, 2000; Carr & Tait, 1991; Morris & Evans, 2004; Paquette & Domon, 2003).

What is the cause of this difference? Until recent times agricultural landscapes have not been widely modified for their scenic value, but rather have represented the work of farmers in their everyday struggle with the environment—they have been moulded from the commercial farming practices dominant at the time. Some researchers have suggested that farmers' landscape preferences reflect this struggle,

as they view landscapes not from a purely aesthetic perspective, but rather considering the practical difficulties they are likely to cause to agriculture (e.g. Burel & Baudry, 1995; Calvo-Iglesias *et al.*, 2006; Claval, 2005; Surová & Pinto-Correia, 2008; Yu, 1995). Others, however, view farmers' appreciation as attributable to its cultural or symbolic importance. It is because farmers understand the everyday practices involved in shaping farm landscapes that they are able to interpret and appreciate fully what they are seeing, whereas for non-farmers "neither eyes nor minds [are] either fully able, or willing to appreciate that upon which we gaze" (Carlson, 1985, p. 306; also see Carlson, 2000; Cosgrove, 1984; Eaton, 1997; Nassauer & Westmacott, 1987). Winkler (2005) proposes this constitutes an 'aesthetics of proximity' in which local people, through their direct connection with working the landscape, develop aesthetic appreciations different from 'bourgeois' distant viewers—viewing the 'beauty of the work' rather than the 'beauty of the land'.

If farmers are to be given the role of preserving the aesthetic qualities of rural areas, it is important that we understand more about their preference for tidy landscapes. Consequently, the objective of this paper is to explore the connection between the visual appearance of the landscape and the farming culture. To this end, it applies Bourdieu's (1984, 1986) theory of capital as a conceptual framework but, unlike other landscape studies using Bourdieu (which have tended to focus on the 'habitus'), it looks at how preferences for landscape are both generated by and generate cultural capital. It should be noted that this analysis is restricted to arable landscape only. While landscapes managed for livestock are also an important part of farming cultures (e.g. Burton, 2004; Yarwood & Evans, 2006) it is the ordered arable landscapes that are often the centre of differences between farmers and the public (van den Berg *et al.*, 1998).

2. The Role of Cultural Capital in Aesthetic Appreciation of Farmed Landscapes

The social theories of Bourdieu have contributed significantly to studies of cultural landscape appreciation. In particular, Bourdieu's concept of 'habitus' has acted as a focus for linking regional cultures with the development of specific agricultural landscapes, for example, creek landscapes within a watershed in Missouri, USA (Glenna, 1996), organic farm landscapes in New Zealand (Egoz *et al.*, 2001), hay meadows in the Peak District of the UK (Riley, 2008) and production-oriented landscapes in Jæren, Norway (Setten, 2004).² Habitus is described by Bourdieu as:

a socialised body, a structured body, a body which has incorporated the immanent structures of a world or of a particular sector of that world—a field—and which structures the perception of that world as well as action within that world. (Bourdieu, 1998, p. 81)

Thus, the actor's habitus combines social and structural elements into a 'body' that processes a subconscious framework for operating within their world. Through socialisation there is a strong historical aspect to the concept, with habitus being passed through families from generation to generation. While Bourdieu's theoretical focus is almost exclusively on social space and tends to neglect objective space (Gatrell *et al.*, 2004; Holt, 2008; Patterson, 2008), habitus is seen by many to provide

a link between self and place and therefore between landscape and culture (e.g. Easthope, 2004; Paasi, 2002; Setten, 2004). For farmers, everyday behaviour guided (not in a deterministic sense) by the habitus becomes etched in the landscape in the form of traditional practices (e.g. farming styles—van der Ploeg, 2003) and these moulded landscapes, in turn, become incorporated in the local habitus through historical association, thus providing a moral framework that guides and constrains how future practices are performed (Riley, 2008; Setten, 2004).

Understanding how aesthetic preferences for landscape become incorporated within the habitus requires the introduction of another of Bourdieu's key concepts, that of cultural capital. Cultural capital, is, in Holt's (1997, p. 96) words:

a set of generic transposable characteristics—dispositions, skills, sensibilities, embodied knowledges concerning the body, beauty, creativity, individuality, achievement, and so on—that together compose the habitus.

Bourdieu (1986) contends that cultural capital exists in three fundamental states: in institutionalised forms (such as educational qualifications or awards); in an objectified state (the possession of high status cultural goods); and in an embodied state (long-lasting dispositions of the mind or body, e.g. skill, 'taste'). Tastes, including knowledge of field-appropriate aesthetics, are learned through practical experience and education within a cultural habitus—with the strongest and least self-conscious aesthetic sensibilities being those developed over a lifetime (Duncan & Duncan, 2001). Wacquant (2008, p. 270) outlines Bourdieu's perspective on the development of aesthetic taste as:

To appreciate a painting, a poem, or a symphony presupposes mastery of the specialized symbolic code of which it is a materialization, which in turn requires possession of the proper kind of cultural capital. Mastery of this code can be acquired by osmosis in one's milieu of origin or by explicit teaching.

Thus, Bourdieu (1984, p. 3) suggests, aesthetic appreciation is not an empathic connection, but "a decoding operation, which implies the implementation of a cognitive acquirement, a cultural code". Visually appreciating landscapes through Bourdieu is therefore more than an aesthetic process, it is also a social process that is dependent on possessing the appropriate cultural resources—gained either through experience or education. Thus, where landscapes contain cultural symbols that are significant for a given social field, aesthetic appreciation becomes closely (inadvertently and subconsciously) tied with the processes of social judgement—determining the cultural position of the owner of the display.

Cultural capital exists in two primary forms: 'high' cultural forms (e.g. a refined taste in art, wines, or poetry, often associated with high social class); and 'low' cultural forms (skills, abilities and experience based knowledge "acculturated in a social milieu in which they [individuals] engage continually the material rigors of everyday life", Holt, 1997, p. 109). For many researchers, cultural capital is understood solely as 'highbrow' academic and artistic pursuits as outlined in Bourdieu's (1984) publication *Distinction*. However, there is some debate as to whether this is in keeping with Bourdieu's original theory. Lareau and Weininger

(2003, p. 569), in criticising the division of skill and other forms of competence from 'highbrow' culture, observe that, "We can identify nothing in Bourdieu's writing that implies a distinction between cultural capital and 'ability' or 'technical' skills. Instead, we argue he considers them to be irrevocably fused" (also see Gartman, 2002; Prieur *et al.*, 2008; Sullivan, 2007).

In this paper it is contended that rather than being centred on 'highbrow' forms of cultural capital, farming culture is based around knowledges and skills developed in the practice of agriculture itself (e.g. Burton *et al.*, 2008). 'Lowbrow' cultural capital is particularly important for judging social standing here as, unlike many occupations, farmers' skills are generally open to direct, uninvited and often unavoidable scrutiny by peers (Burton, 2004; Nassauer & Westmacott, 1987; Seabrook & Higgins, 1988)—thus "agricultural land becomes a display of the farmer's knowledge, values and work ethic" (Rogge *et al.*, 2007, p. 160). This socially scrutinised reflection of the farmer/farm family in the land may contribute to farmers' strong and internationally noted preference for 'tidy' farmland (e.g. New Zealand: Egoz *et al.*, 2001; Jay, 2005; the United States: Nassauer, 1997; Nassauer & Westmacott, 1987; Belgium: Dessein & Nevens, 2007; Switzerland: Schneider *et al.*, 2010; The Netherlands: Schoon & te Grotenhuis, 2000; Austria: Schmitzberger *et al.*, 2005; Norway: Setten, 2004; Daugstad *et al.*, 2006; United Kingdom: Burton, 2004; Fish *et al.*, 2003; Morris, 2004). The issue we now turn to is what is it farmers are seeing in agricultural landscapes that makes tidiness so important?

3. Methodology

The results presented here emerged from a broader study comparing the cultural capital generated by conventional production-based farming activities and agri-environmental scheme activities (see Burton *et al.*, 2008). To investigate the generation of cultural capital, farmers were asked to describe how they were able to assess their own and other farmers' skills (i.e. embodied cultural capital) from the appearance of the landscape—an approach based on the findings of Burton's (2004) study of the symbolic importance of 'productivist' behaviour.

A cross-cultural study of 25 family farms was undertaken in 2003/2004 in two different regions in the European Union: Hessen, Germany (12 interviews) and Aberdeenshire, Scotland (13 interviews).³ Interviews were conducted in two geographically distinct regions in order to investigate whether the same meanings and skills were being interpreted by two culturally independent samples, that is, to establish whether it was the activities that were generating the "identical categories of perception and appreciation" necessary for symbolic exchange to function (Bourdieu, 1998, p. 100). Regions were selected on the basis of structural similarities in landscape and farming practices—both consisted of rolling hills containing mainly mixed arable/livestock farming, and populations of mainly family farmers. Typical views of the landscape are shown in Figures 1 (Aberdeenshire) and 2 (Hessen). Although the appearance of the Hessen landscape is more wooded than in Aberdeenshire, in both cases there was good visual access to landscape from the roadsides/access tracks.

Selection of respondents followed a snowballing (chain referral) methodology (Salganik & Heckathorn, 2004). While the problems with snowball sampling are well recognised (see Erickson, 1979), the technique is widely used in farm surveys as a



Figure 1. Aberdeenshire landscape (Scotland).

result of difficulties obtaining valid sampling frames (see Burton & Wilson, 1999). The potential for selecting a sample consisting only of a single close network was minimised through a process of a) beginning the surveys from two initial informants rather than one, b) not interviewing on neighbouring farms or farms operated by relatives, and c) following a chain of respondents rather than, for example, interviewing all farmers provided by the first respondent (recommended by Ritchie *et al.*, 2003). In Scotland the sampling procedure resulted in interviews on a number of relatively large farms around Buchan on the north-east coast and smaller farms in the Ellon area of Aberdeenshire. The distribution of the Hessen responses was more widespread through the region. All farmers had a substantial proportion of arable land on their farms with an average of 75% in Germany and 50% in Scotland (the larger percentage in Germany reflecting the practice of indoor animal housing).

To elicit farmers' views on the display of farming skills, key farming activities (tractorwork, animal husbandry, farm maintenance, selling produce, conservation work, paperwork and machinery maintenance—selected through consultation with two local farmers) were written on a series of cards and farmers asked to rank them on the basis of a) how visible they were, and b) the level of skill they were able to display to others. While the rankings were recorded (see Table 1), the key objective of this process was to get farmers to think about and discuss the social significance of their farming practices. Consequently, they were asked to explain their rankings in-depth and the discussion recorded and transcribed verbatim.



Figure 2. Hessen landscape (Germany).

Table 1. Average rankings (1–7) of farming activities in terms of visibility and ability to embody the skills and knowledge of the farmer

	Skills and knowledge		Visibility	
	Scotland	Germany	Scotland	Germany
Tractor work	2.77	1.44	2.07	3.75
Animal husbandry	2.15	1.44	2.84	4.31
Farm maintenance	3.92	5.11	3.15	3.89
Selling produce	4.15	4.56	5.76	3.82
Maintaining machinery	4.77	3.78	4.69	4.08
Conservation work	5.50	6.25	3.76	3.77
Paperwork	5.91	4.00	7.00	4.03

Coding and analysis of the transcripts was conducted during a three-week period in August 2005 with both researchers involved present to ensure that codings were identical for both samples. Qualitative analysis was conducted using MaxQDA and a ‘cross-sectional code and retrieve’ approach, where a common system of conceptual and analytical categories was applied across the data set to enable the search and retrieval of labelled data (Spencer *et al.*, 2003). Analysis showed little difference between the responses of the two farming samples, suggesting that local cultural

identity was not playing a major role in landscape perception, that is, farmers shared the international ‘tidy farm’ aesthetic. Consequently the two populations were combined for analysis.

It is acknowledged that there are a wide variety of farming types that were not investigated. There is no single farming culture (or ‘habitus’), but rather multiple ‘agri-cultures’ (Evans *et al.*, 2002; Morris & Evans, 2004) following different practices and holding to different belief systems. However, the widespread appreciation of tidiness detected in both aesthetic preference studies and sociological studies of farming communities, combined with the international nature of the ‘tidy’ farm aesthetic (noted above), suggests that this perspective remains dominant in Western commercial agriculture. Nevertheless, future research into aesthetic preferences of, particularly, organic farmers (where ‘tidiness’ is made more difficult by the farming system) and corporate farmers (where preferences may be more influenced by financial issues than cultural ones) is likely to provide further interesting perspectives on this issue.

4. What Do Farmers See in Agricultural Landscapes?

The average rankings of farming activities illustrate the importance of fieldwork for displaying cultural capital. In both the German and Scottish surveys tractorwork was ranked as both the most visible farming activity and the activity where the farmer was most able to display skills and knowledge to other farmers (see Table 1).

The table illustrates a couple of additional points. First, whereas animal husbandry in both countries is an activity that embodies the cultural capital of the farmer, in Germany the visibility of animals is lower. This is likely to result from the practice of housing animals indoors. Second, conservation work in both Germany and Scotland is seen to be highly visible but is not an area where farmers are able to display their skills to others (this theme is explored in Burton *et al.*, 2008).

To investigate the cultural significance of tractorwork and its impact on the development of the ‘tidy farming’ aesthetic it is necessary to analyse the qualitative component of the interviews in greater depth. As the appearance of agricultural landscape is affected by strong seasonal changes, this section follows through the seasonal production cycle outlining what it is farmers see in the landscape and what this signifies about the skill and knowledge of the farmer.

4.1. Ploughed Landscapes

Despite the featurelessness of ploughed landscapes, there is much farmers can discern about the farming skill applied. Essentially, the more monotonous and regular the fields the better. A lack of straw or other vegetation on the field indicates the soil has been turned over properly and that consequently, weed growth will be minimised as will the possibility of the crop being afflicted with pests or diseases (farmers 4 and 7, Scotland; farmer 17, Germany). The features of the land at this stage are limited to furrows created by ploughing. Regularity of furrow height illustrates that the plough has been working to a constant depth and creating an even seed bed such that crops are likely to emerge evenly (farmers 8 and 5, Scotland; farmer 20, Germany). In addition, the extent to which the furrows are parallel and

equidistant (or 'straight' in the farmers' vernacular) is important as, along with the setting of 'tramlines' in the field (see section 4.3.2), it provides the base for all later activities on the field (e.g. farmers 4, 7 and 9, Scotland, farmers 15 and 20, Germany).

Getting the tractorwork straight during sowing is arguably the most economically and socially critical part of farming and consequently performing this task has become strongly attached to the notion of 'tidy farming'. This was clearly evident in the surveys through the level of distress farmers felt when reflecting on crooked crop lines in the landscape. For example, farmer 20 (Germany) when told that farmers in Scotland like to plough straight and asked if it is the same in Germany observes:

Of course it's the same. Of course! That is straight sowing, ploughing and the whole soil preparation ... where you have sown crooked, you don't get any enjoyment out of it for the rest of the year.

A similar story is recounted by farmer 15 (Germany):

When I drill at night then sometimes it happens that I fail to drill straight lines. It annoys me for the rest of the year. *Really* it annoys me for the rest of the year. I have one field of 8 ha that I drilled partly in the dark because I thought that if it rained I wouldn't be able to get on the field. And I got the last 3 ha a little crooked. I'm really looking forward to combining this field because then I won't have to see the crooked lines any longer.

In these quotes, both farmers create a direct connection between the preparation activities on the field and the extent to which they visually enjoy the landscape—the 'mistake' provides both a focus for discontent and an incentive to physically alter its appearance at a later date.

4.2. Landscapes with Emerging Crops

Ploughed fields are visually attractive because of the regularity of furrow depth, the way in which the topsoil has been turned and the straightness of lines in the field. Yet, in terms of its broader landscape value the skill evident in a ploughed landscape is not easily read from a distance. As the year progresses, however, evidence of ploughing begins to disappear as the crops emerge. This is a symbolically critical time of the year as this dialogue with farmer 4 (Scotland) suggests:

Interviewer: Is there any time of the year when good tractor work is more obvious than ...

Farmer: Yes, well, I would say probably springtime.

Interviewer: Springtime?

Farmer: Yes.

Interviewer: When things start coming up?

Farmer: Yes ... You'll see the potato drills and all nice and straight.

Interviewer: And do you look at other farmers' ... ?

Farmer: Oh yes. Oh yes.

Similarly, farmer 7 (Scotland) details why the spring is such an interesting time for the farming community:

It's an interesting time for the guy that's sowed them, or whatever, yes ... There can be bits double sown, you know, and so on. That sort of thing. Overlapping, and underlapping.

Thus the emergence of the crop marks out 'mistakes' that have previously been hidden under the ploughed soil, enabling the farmer to assess the soil preparation skills from a greater distance. In addition to the ploughing skills, farmers can now evaluate skills associated with operating and setting drilling machinery—such as setting the correct seed dispersal rate, setting the correct drill depth, sowing the seed evenly over the field, or being alert to problems of clogging in the seed dispersers. All leave characteristic signs on the landscape.

4.3. *Landscapes with Maturing Crops*

4.3.1. *Crop density.* Farmers in both countries observed the importance of crop density for farming success. For example, when asked what visible signs there are of a 'good farmer', farmer 23 (Germany) suggests:

... the plants per square metre. Whether you see only a few plants or whether the whole field is very dense so that you can't see the soil. If it was a full, dense field, you'd see only plants. If you see a field where you are able to count the rows it indicates that the plants are too weak to put out lateral shoots so it's a poor field and will result in poorer yields than if it was dense. A dense field would be so proliferate that you couldn't count the rows.

Farmer 2 (Scotland) expressed delight and pride in seeing a field where the crop is so dense that the ground itself is not visible.

... straight lines is the first thing that comes to mind. But—for instance, our crops are covering the ground completely. Now that is fantastic. You know? ... you'll hardly still see the drills, the rows of each of the plants. Now ours are ... and other people think that's just marvellous. It's fantastic.

Farmer 15 (Germany) suggests that crop density is an area where thorough knowledge of the environmental conditions in the field and the needs of the crop can provide a very good visual indication of farming skill as well as displaying his/her connectedness with the land.

When the crop goes flat, there you can show your skills. You can get as much as possible from your crop, i.e. you put the maximum number of plants per square metre knowing that this site can cope with this density of plants and there is sufficient water and nutrition available. Then you apply twice a plant growth regulator at the right time and the crop doesn't go flat. And then you have colleagues, they sow a quarter or a third fewer plants and it still goes flat.

These quotes are interesting as they suggest that beyond a certain stage in the plant's growth, straight lines in the crops are no longer the primary visual concern of the farmer—rather they can detract from the appearance by suggesting that the crop density is too low. At this stage, fields in the landscape should appear as an unbroken blanket.

4.3.2. Tramlines in the crop. Focus now is often placed on the only obviously straight feature in the field—the 'tramlines' along which the machinery runs. Tramlines (gaps left for the machinery wheels when the field is prepared) have an important functional role in that they allow the farmer access to fields without crushing crops, double-dosing or leaving areas untreated. As with furrows and emerging crops, tramlines are judged for their parallel appearance and equidistance—their 'neatness' (Nassauer & Westmacott, 1987). Comments from farmers in both Germany and Scotland suggested that tramlines are a major source of social ridicule when they are not sufficiently straight (also see Burton, 2004). For example, farmer 20 (Germany) observes:

There are farmers who can't do straight tramlines! And that's the reason why one is annoyed, you see it for about one year . . . and when you had a bad day when you were sowing, then you get comments like 'you were at the fair last night' or something like that. And then you obviously get annoyed when you see the field again.

An important reason for annoyance with tramlines is that, of all the linear field features, tramlines are generally the most visible from a distance (Figure 3). For example, farmer 1 (Scotland) notes "You see the tramlines from a distance, and if they're straight, that's good work" and farmer 13 (Scotland) "On a farm where your neighbours can see what you're doing it's nice to see all the tramlines straight."

4.3.3. Crop colour and patchiness. The final component of cropped landscape assessment is the colour of the crop. Here the display centres on the crop husbandry (management) skills of the farmer rather than skills involved in sowing and soil preparation. The overall colour (at the field scale) displays the crop's condition and, in particular, whether fertilizer has been applied correctly. For example, farmer 23 (Germany) suggests of his crop at the time of interviewing in June:



Figure 3. Straight and evenly spaced tramlines on a field in Scotland.

If it is healthy crop, it should be dark green at the moment. If it turns yellow, there is a nutrition shortage.

This illustrates how much visual appreciation is influenced by expert knowledge of ephemeral changes in the landscape. There are times in the year where a healthy crop should be dark green and, likewise, there are times when it should be yellow—particularly around harvest time.

Colour patches in the field can reveal a variety of deficiencies in management. The first is a failure to treat weed infestations, for example, poppy flowers appearing as splashes of colour in wheat fields. Second, lighter patches in a field that should be dark green may signify a problem with fungal or other infections (also see Schneider *et al.*, 2010). Third, colours can reveal damage that has been done to the sub-soil during preparation, that is, the farmer has resumed work before the soil has dried off completely after winter. The result is that the farmer “can get a fine looking emergence of the crop and then it fizzles out” (farmer 11, Scotland). Farmer 7 (Scotland) observes this damage “all becomes visible in mid-summer”. Finally, patchiness in the crop can reveal underlying problems with drainage. Drainage problems indicate that the maintenance of the farm may be in decline (and likewise the farmer/farm family) as drainage is an important part of good farming in Scotland (farmer 11, farmer 13).

5. Discussion

In general, the results of this study indicate that appreciating agricultural landscapes is, as Bourdieu’s theories would suggest, a matter of possessing the cultural capital (embodied knowledge of practices) required to understand the ‘specialized symbolic code’ behind landscape forms and colours (Wacquant, 2008). What does it mean if emerging crops are not spaced evenly, do not emerge at the same time, are the wrong colour, or contain shapes/colours that do not belong in a ‘tidy landscape’? Fundamentally, it means economic loss. For example: the potential for weed re-growth dictates that the ploughed land should be fully turned over; it is because of the cost of double treatment or lack of treatment of crops that parallel tramlines have become an important visual feature; visible weeds in the crop may lead to a bad seed sample and lower returns; the optimum spacing of seed ultimately leads to a greater harvest; and so on.

It would be easy from this observation to conclude that farmers’ main concern for agricultural landscapes is economic (e.g. van den Berg *et al.*, 1998). However, there are clues in the study that suggest the cost of poor displays are not simply economic (also see Burton, 2004; Schneider *et al.*, 2010). First, the economic impact of many of the mistakes in field geometry or regularity is minimal. For example, farmer 15 (Germany) indicated that getting one field of 3 hectares “a little crooked” was likely to irritate him throughout the year—until he could harvest and not have to see the crooked lines. While this may result in a slightly reduced yield, the 3 hectares represents only 1.6% of his total land in cereals—therefore, the economic loss is likely to be negligible. Second, while observing each others’ fields has economic as well as social benefits (through gaining new ideas, recognising pest threats, and so on), there is no obvious economic benefit to being critical of neighbouring farmers (e.g. ‘you were at the fair last night’). Yet farmers comprise a judgemental peer group

(Barlett & Conger, 2004; Lowenthal, 2007; Seabrook & Higgins, 1988) more than willing to criticise others' mistakes, albeit often in a friendly or joking fashion (Burton, 2004). Thus, as Schneider *et al.* (2010, p. 337) note "the aesthetics of fields is seen as a symbol of the social position of the farmer", rather than simply reflecting the economic condition of the farm.

To understand why the creation of tidy landscapes is culturally and socially important it is necessary to return to the theoretical framework. According to Bourdieu (1986), capital exists in three fundamental guises: economic capital (capital resources in the form of material property), social capital (the capital resources that can be mobilised via social connections and mutual obligations) and cultural capital (capital resources in the form of knowledge, skills, dispositions). Central to Bourdieu's theory is the notion that capital is transferrable between all three forms (via 'symbolic capital'—status, prestige and reputation) such that "profits in one area are necessarily paid for by costs in another" (Bourdieu, 1986, p. 54). Embodied cultural capital generates social capital as it:

"inculcates within individuals the dispositions and manners that facilitate the types of appropriate sociability which allow the 'alchemy of consecration' to transform contingent relationships into relations of mutual obligation." (Holt, 2008, p. 232)

Through this process cultural capital promotes sociability, and can be (subconsciously or otherwise) deployed for the purpose of "establishing or reproducing social relationships that are directly usable in the short or long term" (Bourdieu, 1986, p. 52). Those who possess relevant cultural capital are both more able to act in appropriate ways within social networks, and possess knowledge, skills, and culturally/economically important objects that make their inclusion within social networks desirable.

The importance of being seen as a good farmer by the peer group has been widely recognised in studies of farmer behaviour (e.g. Burton, 2004; Fairweather & Keating, 1994; Haggerty *et al.*, 2009; Saugeres, 2002; Stock, 2007). In particular, a good reputation (of the farmer *or* farm—Burton, 2004) is an important means of securing the cooperation of other farmers in a community (Lundqvist, 2001). At the same time, farmers who do not comply with group norms are likely to develop a bad reputation (Bogetoft & Olesen, 2002) leading to their potential exclusion from social capital resources. As being a good farmer in conventional terms is connected with efficiency of action and this efficiency manifests itself in regular forms in the landscape, the process of generating a good reputation inadvertently leads to landscapes that are regular and tidy. Subsequent socialisation within the social milieu of the farm family (a long process beginning almost at birth; Fischer, 2008; Sachs, 1973) leads to the embodiment of a *habitus* that has at its core a preference for these tidy landscapes ingrained as a 'natural' disposition—a 'sense of place'.

While this picture of the cultural importance of landscape may apply to commercial farmers in regions with good visual access to the land, the issue remains of how generalisable these results are. In particular, two questions need to be addressed: what happens when the farm practices are not so open or visible to other farmers (how is the capital transferred?) and how is the generation of capital effected by the new environmental roles farmers are playing in Europe?

In the first instance, there is evidence that farmers in regions where the visibility of farm practices is poor place emphasis on objectified forms of cultural capital that are either near the roadside, can be placed near the roadside, or are otherwise visible from large distances. Studies in the United States suggest that in some regions grain silos have become symbolically important landscape features because of their visibility in an otherwise featureless landscape. For example, Rogers (1983, p. 216—also see Dalton, 1967), in a discussion about the role of object status in innovation adoption, observes that the diffusion of the extremely expensive ‘Harvestore’ in the US was largely because they are:

constructed of steel and glass, painted navy blue and prominently display the maker’s name; *their height dominates a farmer’s skyline, so they are easily visible from public roads.* (emphasis added)

Alternatively, Dessien and Nevins (2007, p. 279) found farmers in Belgium gained self-esteem by parking their machinery in a viewable position to enable their colleagues to see “the sun reflecting on the sparkling coachwork” (also see Burton, 2004; Seabrook & Higgins, 1988). Maintaining objectified cultural capital with cultural heritage significance such as field boundaries, granaries and watermills that “reflect relevant functions for the agrarian community” (Calvo-Iglesias *et al.*, 2006) may also be an important indicator of objectified cultural capital—of belonging to the peer group and sharing a common cultural heritage.

Alternatively, farmers may employ a focused approach to cultural capital production in their fieldwork. It has been noted in the literature that farmers keep their roadsides in better condition than other parts of the farm—to the extent that the investment sometimes serves no real economic function, or even constitutes an economic loss (e.g. Burton, 2004; Burton *et al.*, 2008; Dessien & Nevins, 2007; Nassauer & Westmacott, 1987; Seabrook & Higgins, 1988). Easily visually accessible parts of the farm can thus serve a symbolic as well as an economic role, enabling the farmer to display their farming abilities to peers even where other areas are obscured.

The second issue recognises that farmers do not constitute a single culture but a multitude of different ‘agri-cultures’ (Evans *et al.*, 2002; Morris & Evans, 2004) each with potentially a different set of beliefs concerning what constitutes good farming practice. In the recent past, the role of farmers in society was relatively fixed as producers of food and fibre, leading to the development of a strong and ‘traditional’ farming culture based around productivism (Bryant, 1989). However, changes in agricultural policy have left farmers performing a much more diverse set of roles. In particular, farmers in Europe have been engaging in paid agri-environmental work for almost two decades now—leading some to believe that attitudes to production have changed as farmers see tangible environmental improvements (Bager & Proost, 1997; Fish *et al.*, 2003; Morris, 2004). If this view of farming is widespread, it would suggest that the production orientation of farmers is weakening—as is the symbolic importance of tidy farming.

This is a valid argument, however, the actual impact of these changes is minimal. The majority of assessments of the success of paid voluntary agri-environmental schemes (from across the EU) indicate there has been very little change in farmers’ attitudes to conservation, with farmers preferring to maintain tidy approaches to

landscape management (see Burton *et al.*, 2008, for a list of studies). In addition, despite the increasing emphasis on the environment, studies from around the world in different contexts—for example, in both liberalized (Egoz *et al.*, 2001; Jay, 2005) and policy-led agricultural regimes (Schmitzberger *et al.*, 2005; Setten, 2004)—also continue to find a preference for tidy landscapes. Involvement in environmentally friendly farming practices that lead to ‘untidy landscapes’, in comparison, continue to result in a loss of social status for the engaging farmer (Burton *et al.*, 2008; Schneider *et al.*, 2010). While conservation work is conspicuous in itself (as the results in Table 1 suggest), symbols of good work such as species diversity and the existence of rare species are generally neither easy to assess (understanding their significance requires specialist knowledge in ecology) nor view from the roadsides (Burton *et al.*, 2008).

Another factor that suggests the aesthetic perspective associated with this habitus is not a transient one is its longevity. Over 120 years ago Richard Jefferies (1889, p. 130)—the son of a small farmer near Swindon in the UK who wrote for the *Live Stock Journal* as an agricultural expert—made the following observation on the visual attractiveness of wheat fields:

There was another wheat-field by the side of which I used to walk sometimes in the evenings, as the grains in the ears began to grow firm. The path ran for a mile beside it—a mile of wheat in one piece—all those million million stalks at the same height, all with the same number of grains in each ear, all ripening together. The hue of the surface travelled along as you approached; the tint of yellow shifted farther like the reflection of sunlight on water. It seemed a triumph of culture over such space, such regularity, such perfection of myriads of plants springing in their true lines at the same time, each particular ear perfect, and a mile of it. Perfect work with the plough, the drill, the harrow in every detail, and yet such breadth. (emphasis added)

In this we see many of the features typical of views of contemporary farmers. In particular, Jefferies emphasises tidiness in the height of the corn stalks, equal size of corn ears, the emergence of the crops at the same time, and the regularity of the colour. Further, Jefferies makes the important association between the appearance of the landscape itself and what it tells him about the practices employed by farmers in constructing the landscape “perfect work with the plough, the drill, the harrow in every detail” thus enforcing, again, the importance of landscape as a representation of “culture over such space”.

One final observation should be made on the question of why farmers’ aesthetic preferences, as assessed in landscape research studies, appear different to those of other publics. In the preceding analysis it is evident that the scale at which farmers view landscape is a very detailed one—for example, focusing on the furrow height and linearity, plant heights and spacings, slight colour variations, and so on, that occur within individual fields. Thus, as Brady (2006, p. 2) maintains, aesthetic engagement with agricultural landscapes “is not characterised by observing grand views from a distance, which has become a conventional way of enjoying wilder landscapes or ‘natural scenery’”. In addition, farmers’ visual assessment of agricultural landscapes focuses on ephemeral cues, that is, on the seasonal changes

that occur as opposed to ‘fixed’ landscape features and, for this, they depend on knowing what it should look like at a particular stage of the year. In contrast, landscape research tends to both focus on large-scale features such as mountains, forests, valleys, settlements, and so on (Ode *et al.*, 2010), and, according to Brassley (1998), has a tendency to neglect the ephemeral nature of landscape. Thus, differences between farmers’ and other publics’ aesthetic preferences may be partly attributable to the scale at which landscapes are being assessed and a lack of focus on their ephemeral characteristics—not only do we not see what the farmers are seeing, we are not even looking in the right place.

6. Conclusion

While the idea that knowledge of good practice underlies farmers’ preferences for agricultural landscapes is not new (e.g. Carlson, 1985; Cosgrove, 1984; Nassauer & Westmacott, 1987), analysing this perspective through a Bourdieusian framework has provided new insights into the relationship between farming culture and landscape. In particular, introducing the concept of farmland as a site of cultural capital generation and exploring its importance in broader systems of capital, unravels much of the mystery that is inherent in studies focusing on habitus as the cultural connector between farmers and their landscapes (e.g. Easthope, 2004; Paasi, 2002; Setten, 2004). Habitus may provide dispositions to act, but it is in understanding how these dispositions develop that we begin to comprehend the real importance of tidy landscapes to conventional farmers. Inculcation of cultural capital into the habitus through extended periods of socialisation in family farming may then explain why farmers’ aesthetic appreciation of landscape is so different from that of other social groups—and why to farmers it is a ‘natural’ aesthetic view.

Policy-makers and landscape assessors need to be aware of this. Scott *et al.* (2009, p. 419) observe that the concept of ‘multiple publics’ is “rarely discussed or given sufficient credence in policy or research”. Further, in order to be sustainable, policy for the development of agricultural landscapes needs to consider socio-economic objectives in the landscape, including the economic, cultural and social objectives of farmers (Ahrens & Kantelhardt, 2000). While it is clearly not desirable for agriculture to dominate landscapes with broad swathes of endless monocultural production, recognition should be given to the cultural importance of tidy landscapes to the farming community as one of these multiple publics. As this study has shown, farmers’ aesthetic landscape preference is closely tied with their understanding and practice of production activities, and, as the quote from Jefferies (1889) illustrates, this connection has deep cultural and historical roots. For farmers, landscapes do not simply reflect established or historical aesthetic preferences. Rather, as landscapes play an important role in transferring flows of cultural and social capital between individuals and generations, the cultural meaning of being a farmer is heavily embedded in the landscape itself.

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Notes

1. By 'industrial' I refer to landscapes dominated by commercial agriculture such as Daugstad *et al.*'s (2006) modern agricultural landscapes or Setten's (2004) intensively farmed landscapes—as opposed to more traditional landscapes of high cultural value such as those evaluated by Scott (2002).
2. Similar levels of connectedness between communities and landscapes have been viewed in other contexts. For example, Mackenzie's (2004, 2006) exploration of crofting communities and 'wilderness' landscapes, Lee's (2005) analysis of the symbolic importance of hill farming in Orkney, or Gray's (1998) perspective on the consubstantiality of sheep farming communities in the Scottish Borders.
3. Note that although there are other forms of farm ownership (in particular, Marsden, 2003, notes that farm systems are changing towards a more corporate model) over 90% of farms in the USA, Europe (Brookfield, 2008) and Australia (Pritchard *et al.*, 2007) continue to be family owned.

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