

## WHAT IS THE ROLE OF HIGHLAND CATTLE IN THE 21<sup>st</sup> CENTURY ?

*Some reflections and personal views  
presented at the 3<sup>rd</sup> International Gathering of Highland Cattle Breeders  
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by Stephan Janz*

Mr Chairman,  
Ladies and Gentlemen,  
Dear Fellow Breeders from around the world,

Before I start let me say how very much I appreciate the great honour of having been invited to speak to you at this Gathering. I sincerely thank the Highland Cattle Society for this invitation.

Let me introduce myself, just in a nutshell.  
My name is Stephan Janz. I am a GP by profession and a would-be farmer by inclination.

I have been involved with Highland Cattle for more than twenty years. I have a small fold, never more than six to eight cows so that I can always manage it all by myself. We live in Lower Saxony, very close to the former border, and it is rather flat there, mostly arable land and too good for Highland Cattle really. I market my bullocks privately, I keep whatever heifers I need for replacements in a closed herd and occasionally I have a decent animal to sell for breeding.

As I said, I have been involved with Highland Cattle for more than twenty years. I got hooked and I have experienced all the addictive joys of breeding these wonderful animals. As a hands-on breeder I have been faced with all the day-to-day problems and questions that need to be solved and answered in order to get on with things. But occasionally, you know how it is, other questions pop up, questions like: "Why am I doing this? Why should it be Highland Cattle?" But unless one is philosophically inclined one tends to dismiss questions like this and store them in some mental chamber where they do not interfere with the daily routines.

So, when Angus Mackay rang me a year ago to ask me would I like to speak at this Gathering I was of course surprised, I was pleased, I felt honoured, but I was also a bit frustrated at first about the topic of the day: "The role of Highland Cattle in the 21<sup>st</sup> century". My goodness, I thought, before I recognised it as one of the questions that had been lurking at the back of my mind for many years and so I came to welcome the occasion to give it some more thought.

### An worrying question

The question "What is the role of Highland Cattle in the 21<sup>st</sup> century?" is an odd question somehow. It would, for instance, not be the same question, if we put it to an

assembly of Angus or Limousin breeders. Here it would easily be answered and dismissed by a shrug of the shoulders – “Beef production, what else !” – and the assembly would proceed to the other questions on the agenda. We could compare our question to a similar question like “What is the role of the Shire Horse as a draught horse in the 21<sup>st</sup> century?” or “What is the role of the Husky as a sledge dog in the 21<sup>st</sup> century?” and then it becomes maybe a bit more apparent, why our question somehow gives us the uncanny feeling, that as an honest and serious question it is a worrying one, the question really being: “Do Highland Cattle indeed have a useful role to play in the 21<sup>st</sup> century?”

I don't know how it was meant, but I shall take it as the serious question I have contemplated more than once during the last twenty years and in order to arrive at a meaningful proposition of an answer I would like you to take a look with me at today's Highland Cattle and at the situation of the breed today.

The point of view from which I would like you to have a look at the breed is not the point of view of the beef market nor the point of view of the individual breeder. It is not the point of view of the secretary of the Highland Cattle Society and it is also not from the point of view of the purity of the breed – we had long debates about this at the first International Gathering in 1995.

The point of view from which I would like us to have a look at the Highland breed today is the point of view of the **genetic essence and the integrity** of the breed, because that is what differentiates it from other breeds, what makes it special, what basically constitutes its reason for being.

“The value of the West Highland Cattle consists in their being hardy”

The essence of the breed, the essential difference from other breeds of cattle, is a point that, amazingly enough, does not seem to be controversial at all among Highland breeders. We read it in books, in journals, in advertising leaflets and flyers and on countless websites and we as breeders keep announcing it: Highland Cattle are the hardiest cattle and will thrive under harsh conditions, where other breeds will hardly survive. It is this belief that constitutes what we might call the corporate identity of the Highland community worldwide. 200 years ago, when he wrote his book about the different breeds of cattle, William Youatt stated precisely the same: *“The value of the West Highland cattle consists in their being hardy and easily fed; in that they will live, and sometimes thrive, on the coarsest pastures ...”* because *“... they are suited to the soil and to the climate ...”* and he refers to *“the belief of the Hebridean farmer, that no other breed of cattle will thrive on these islands ...”*.

Hardiness, ....

I would like to define “hardiness” in this context: it is the ability to withstand the hardships of rain and wind and the chill-factor of rain and wind at low temperatures; it is the ability to survive long periods of extreme scarcity and near-starvation and an ability for quick recovery and compensatory growth; it is the ability to cope with a short vegetation period and the superior ability to consume and convert large quantities of poor quality roughage. Many breeds of cattle claim virtues like high

fertility, ease of calving, good mothering instincts, superior beef-quality etc and given decent conditions of husbandry this is probably true in most cases. The special thing though with Highland Cattle has always been, that they can do all that under the poorest and most difficult conditions of climate and soil, food and husbandry and this is what we call hardiness. Other breeds of cattle may have a higher milk yield, they may grow faster, grow bigger, mature earlier, produce more beef. The very specific advantage that Highland Cattle have over other breeds, their particular speciality, what differentiates them from all other breeds, is their unique hardiness.

So we maintain.

We maintain – and this is not controversial among Highland breeders – that the essence of our breed is their hardiness and by logic and common sense one would expect that breeding for hardiness should be the primary and main consideration of all Highland breeders around the world.

.... the endangered core competence

I am afraid that this is not the case. My worry and indeed the central claim of my reflections today is, that for the vast majority of Highland Cattle worldwide the mechanisms of selection that shaped the breed over many centuries and made them this uniquely hardy breed are not in operation any more. And equally important: most of our modern visions and ambitions about the breed, our breeding decisions and our improvements of everyday husbandry run contrary to the original evolution of the breed. And my claim is that this cannot possibly be insignificant as far as the integrity of the genetic essence of the breed is concerned.

Other breeders also have expressed their concern about this observation. Don Badger, a Canadian breeder, whom most of you will know, once wrote: *“I suspect the traits of Highland Cattle today are very different from those which evolved during the necessity phase”*, meaning the time when Highland Cattle were the wealth of the Scottish hills and islands. And nearly 20 years ago the late Gordon “Crop” Kohl, the great old man of the Canadian Highland Cattle Society, addressed the AGM of the American Highland Cattle Association and through his optimistic words you can sense some of the same worry about the possible loss of the genetic integrity of the breed. “Crop” Kohl said: *“It always amuses me how every beef breed boasts qualities like easy calving, good mothering, milkiness, hardiness, fertility, longevity, docility. I am amused because they are far removed from their native antecedents. The further you get from those, of course, the weaker the primitive rustic traits.”* Gordon Kohl does not say so here, but precisely this applies to the Highland breed as well. He goes on: *“By contrast, while having to cope by themselves with the foulest of environmental surroundings, Highlanders were obliged not only to survive but to thrive. Man, in his great wisdom, has not yet seriously fiddled with their genetic baggage. And that is why all those wonderful native traits come out so strongly in our own breed and we can say so without the least trace of a lie. Although obviously not an endangered breed in any way, Highland cattle are still on the “watch” list of the world rare breeds conservancies. So, the population is relatively small, meaning that we should approach the animal with respect. A wrong move can make big ripples in a small pond.”*

As I said, these are optimistic words but they are also meant as a warning against making “wrong moves” in “a small pond”. I do not entirely share the optimism. I am afraid, that quite a number of “wrong moves” have already been made and I am not sure that the “genetic baggage” is still quite what it used to be.

Let me explain about the “wrong moves” I have in mind.

## “Wrong moves”

### I. Historic progress/ Animal welfare

The first and most obvious “wrong move” – wrong with respect to the evolution and maintenance of the ancient rustic traits of the breed – has been historic progress, the changes in infrastructure and agriculture during the last 200 years or so. These changes have taken away most of the selection pressure for survival skills.

During “the phase of necessity”, as Don Badger called it, Highland Cattle were selected or, again as Don Badger puts it, “selected themselves for hardiness to survive the rigorous conditions”. The main difficulty with these conditions was starvation in winter, lack of winterfeed. For obvious reasons this test of hardiness and this mechanism of selection is not in operation any more.

The ability to survive times of extreme deprivation has to do with the Highland cow being a relatively small animal and with her ability to put down fat deposits in times of plenty. Breeding for bigger animals and breeding for a lean carcass does not help the survival skills

of the animals.

The ability to survive and thrive has to do with a Highland cow’s superior ability to use poor roughage – I emphasise “poor”. This is maybe one of the most important features of the breed. And again, if we look at the conditions that our animals are offered today we see comparatively lush conditions in many places, conditions that resemble those in which Highland Cattle were once upon a time rested and fattened for slaughter after the long drive south, rather than the conditions in which they were bred and raised. So again, many of today’s Highland Cattle are not being put to this test any more.

The ability to breed after times of extreme deprivation has to do with an ability for rapid recovery and compensatory growth in brief periods of plenty. But today periods of plenty are now all year round and therefore no regular selection for this particular trait can arise any more.

The ability to survive has to do with the ability to adapt to and cope with mineral deficiencies and to coexist with parasites. Today we give them salts and minerals and treat them for parasites and make life a lot easier for our animals.

Today most weak calves that do not stand up and suck survive with our help and many of them grow up and become breeding stock. Today many unfunctional cows that fail to take to the bull, that fail to give birth unassisted, that fail to accept their calves, get a second and a third chance and stay in the herd as breeding stock and so do their offspring.

The Highland Cattle of our times live under conditions that are pure heaven compared to the days of yore and the selection pressures for a lot of the original essential hardiness and survival skills is gone.

I am still talking about “wrong moves ...in a small pond” and these were the moves that have come with the dramatic changes in agriculture as a whole, whether in

Scotland or anywhere else in the world. Inevitable “wrong moves” due to historic progress we might say, because we don’t want to embark on a time warp, “wrong moves” nevertheless.

There are other “wrong moves” I would like to address in order to help you understand my concern about the genetic integrity of the Highland breed.

## II. Exodus from Scotland

A very significant move is the exodus of Highland Cattle from Scotland. The majority of Highlanders now live in many different parts of the world where their very specific skills are not required and where many other breeds will perform just as well and in fact in most cases much better. *Parenthetically: This exodus has been hailed and promoted by the breed societies and the slogan “Highland Cattle are versatile, Highland Cattle are adaptable” has been invented. I think this slogan is wrong. Highland Cattle are well adapted to very specific conditions which does not mean that they are adaptable per se and that they will thrive equally well and stay unharmed wherever man choses to place them.*

## III. The pet-factor

Along with the exodus from Scotland came the exodus from their agricultural function and purpose. It does make a lot of difference whether I keep cattle or whether cattle keep me. Certainly there are commercial Highland herds in Scotland, there are big commercial farms involving Highland Cattle in North America / Australia. But if we look around us at our AGMs and even in this room, we see all sorts of interesting people who keep Highland Cattle for all sorts of reasons and we see only a small minority of people who are actually and strictly speaking professional farmers. By the same token only a minority of the worldwide Highland population is kept today for commercial reasons and this fact impacts heavily on breeding policies and priorities: to a large extent the face and the substance of the breed is not determined any more primarily by their rustic traits, by their performance under severe conditions, by their usefulness in low input agriculture on marginal land. More and more – particularly over the last 30 years – Highland Cattle are bred by enthusiastic and ambitious breeders who breed for other enthusiastic and ambitious breeders and so on. What concerns me here is not that this works a bit like a chain letter, a chain bargain: you are in the business, if you are first in the chain, so to speak, and the devil takes the hindmost. What concerns me more is that the further the breed is relieved of the necessity to prove its invisible rustic traits and survival skills and very specific economic usefulness, the more easily neglected and dispensed with becomes the interior essence of the breed and consequently the more we focus on breeding for the “pretty picture”. It is indeed ironic – and disturbing for me – that for a breed, whose incontestable strong point has always been the invisible internal genetic package that makes up hardiness, the visual appraisal of its outward appearance has become so important as in today’s Highland Cattle scene. It is one of the practised inconsistencies in the Highland community, that we all pretend to know that a show winning animal is not necessarily a good and reliable breeder and still so often we do not act accordingly in our individual breeding decisions.

The breed has changed beyond recognition

So as a result of these developments, alluded to by Gordon Kohls as “wrong moves”, the total Highland Cattle population no longer lives under the conditions that once shaped the breed and a very large proportion of this population is not governed by strict agricultural criteria any more. Whatever influences on the breed have occurred in the last 200 years, I submit there has been no instance whereby there has been reinforcement of the unique genetic package which is specific to the original Highland breed and which defines its differences from other breeds. Today Highland Cattle are purebred, no doubt about this. The Highland breed may be one of the oldest breeds in the world, but it has certainly not, as a dear slogan suggests, “remained virtually unchanged since times immemorial”. The breed has come a long long way from the small rugged beasts that 17<sup>th</sup> and 18<sup>th</sup> century travellers saw on the droves to the south of England to become the impressive animals we see today. It has been said that the breed has changed beyond recognition and that refers to its outward appearance, size, beefiness, uniformity. I am convinced, and indeed I think it does not make sense to suppose otherwise, that this change beyond recognition comprises not only phenotypical aspects but a significant portion of the entire genetic structure of the breed. I am worried that each step on this long journey towards what we see today has been paid for with a little loss as far as the rustic qualities are concerned. Consider two reasons for this: firstly there are just not enough breeders who actively and consistently cull and select for both hardiness and performance in terms of size and weight. And secondly there is a limit to what can be achieved in squaring the circle: more size, a lean and beefy carcass, fast growth and early maturity, these are breeding goals that are to a degree genetically opposed to some of the factors that make up hardiness. We can not have it all at the same time.

## Domestication is an ongoing process and we are responsible

I said I would like you to have a look with me at the Highland breed today and follow me on some reflections about where we stand. I have tried to explain how I see the situation of the breed from the point of view of its essence and integrity and some of you may by now think: “This is obsessive!” That has occurred to me too, but I think it is not obsessive, I think it is important. It is important, because the long process that we call domestication and that started some 10 000 years ago is an ongoing process and we are part of it even though we may not always be aware of it. For thousands of years this was a very slow process, cattle changed imperceptibly as they migrated with their owners and new local types evolved slowly according to their respective new habitat. During the last 200 years this evolutionary process gathered pace and continues to accelerate at unprecedented speed. Changes that needed hundreds of years to occur now can be brought about within decades. Just have a look at the world's most successful dairy breed: not very long ago the old black-and-white dairy cows, the ancestors of modern Holstein-Friesians, produced something like 5000 litres of milk per year. Today a modern HF-cow will easily produce twice as much. Through globalisation the “pond” has become smaller, the “moves” have become more significant and the “ripples” bigger.

For all the reasons I have tried to outline surely the current direction of this ongoing process for the Highland breed can only mean a continuous erosion from within and however insignificant our own contribution in this process may seem, it is up to us either to go with that current or to try to swim against it.

Gordon Kohl believed “...that we must cherish this unique genetic bundle (of the Highland cow), *making the most of the rustic traits...*” and he warned us against “...*competing with the other breeds on their terms*”, but that is just what is happening all too often. His warning is so potently valid not only because it is silly and futile to try to catch up with the head-start of other breeds, but because in trying to do so we are bound to lose even more of our own specific advantage over them.

Is there a place for a living anachronism like Highland Cattle in the 21<sup>st</sup> century ?

That of course begs the question: “Who needs this specific advantage? Who needs hardiness in cattle? Who needs hardy cattle bearing in mind their perceived shortcomings in modern agriculture?” It begs the question: “Is there a place for a living anachronism like Highland Cattle in today’s agriculture? What role indeed can Highland Cattle play in the 21<sup>st</sup> century?”

I have now taken you a very long way around to come back to the question of today’s session (and I thank you all for bearing with me so long and patiently). I have taken you this long way around in order to get to the heart of what I said is an odd question, a worrying question really and also, as we can see now: a courageous question.

Yes, I think, there is a role to play for Highland Cattle in our times. Even with the fundamental changes in infrastructure and farming technology and even considering the dramatic changes that the breed has gone through, as I have tried to outline, there are still places where cattle other than Highlanders will not be happy and thrive. At least not without a disproportionate amount of additional effort, labour, feed, shelter. I am talking primarily about the less favoured areas on the Scottish Islands and Highland of course, and some parts of England and Wales, where wet and windy upland moors prevail. There are relatively few habitats like this in mainland Europe and Scandinavia which resemble these places and which **need** a breed that is **specifically** adapted to just these conditions. Most places where our cattle are kept in Europe (including much of Britain) are wasted on Highland Cattle from an agricultural point of view. I am not competent to speak about North America, Australia and New Zealand other than that a very wide range of different topographies, soils and climates will make some places suitable for Highland Cattle, others less so. In short, wherever we may find truly Scottish northern and upland conditions is where Highland Cattle still have a role to play in agriculture in the 21<sup>st</sup> century. It is **here** only that they have a role to play, one that still requires as much of their traditional rustic traits as is left in them and only here is it still imperative to prioritize these traits and to breed, cull and select, for them purposefully and consistently. It may seem a ridiculously self-evident thing to say that Highland Cattle should best be kept, where soil and climate are Scottish, but obviously it is not. And globally there are vast areas of land with Scottish conditions, vast areas that were once farmed and now lie deserted, where succession sets in, where sheep cannot cope with the roughage and where biodiversity is dwindling. From the point of view of the inner integrity of our old breed it is here – meaning anywhere under Scottish upland farming conditions – **here only** that the gradual metamorphosis of the breed, the fading away of the traditional rustic traits and survival skills, the process that narrows the genetic gap between

Highland Cattle and other “more improved breeds” is perhaps not so much reversed as slowed down compared to the outcomes in all other habitats and all other modes of employment and use.

So the Highland breed does have a role to play, or rather two roles, on this type of habitat:

One role is in **traditional upland farming** which is more difficult and less profitable than elsewhere and needs to be subsidised specifically. Probably the economically most important role of Highlanders here is their role as part of and starting point for profitable cross breeding. I will not go into any detail of this very fascinating part of hill farming and breeding strategies that can utilize the roughest possible conditions at the beginning to start a chain of events that lead down from the hills through all degrees of intensity of farming. (Maybe we will hear more about this tomorrow.) What interests me here today from the point of view of the intact traditional Highlander is that crossbreeding needs not only the purebred Highland cow but for hybrid vigour to come to fruition at its best it needs a wide genetic gap between the two breeds. That calls for a very traditional – genetically unimproved, you might say – Highland cow.

And the other role for Highland Cattle on Highland and Island type of habitats is in large scale **nature reserves**. The benefit here is mutual: on the one hand the essential core of the breed can only survive if it is used in the way I have described, while on the other the respective habitats will suffer loss of biodiversity without the help of specifically suited large herbivores. This fact has become increasingly acknowledged by conservationists in the last decade.

I find it interesting and worth mentioning, because it seems to support my views, that nature reserves that I have visited or read and heard about have made a point of getting their starting stock from traditional Hebridean folds.

So, to sum it up, in my view it is here that Highland Cattle still have a role to play in the 21<sup>st</sup> century; a role in which they are needed as what they are – still are to some degree; a role in which they do what only they can do; a role in which the breed is not threatened by further unseen erosion of their anciently evolved genetic essence.

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Where do I fit into the picture?

Having said all that – and I am really coming to the end of my reflections today – I can sense some irritation in the room. I can hear the question “ And where do I, where do you, where do our cattle fit into the picture?”

Being a hobby breeder I have asked myself this question more than once. Not, I will admit, at the outset. Not at the start of my breeding career, because then I was too full of myself, full of ambitions and fancy ideas. But later doubts came, thoughts grew and part of my learning curve up to this day has been to part with some of these fancy notions and egotistic ambitions.

**With respect to breeding Highland Cattle not only pure and not only true to type but to the best of the long-term advantage of the internal integrity of the breed I do not and my cattle do not fit into the picture that I have invited you to consider.** As a hobby breeder on the lush fields of Lower Saxony in the north of

Germany I cannot easily offer the breed what it needs to keep up its rustic strength for the long-term future.

Will I give up breeding Highland Cattle? No I will not. I am too old for that and I love my cattle and I love what I am doing. But I am proceeding now with a different sense of self-importance, with a different perspective and with a set of breeding rules different from those I embraced 20 years ago.

Many of you, I am sure, will find it hard to agree entirely with what I have said. There are – what ? – maybe 200 people in this room and that allows there to be 200 perfectly valid and well thought-out individual reasons for breeding Highland Cattle and I am not trying to be a spoil-sport. But second thoughts come unexpectedly and if some of my reflections should one day pop into your mind they might come as food for second thoughts and that is all I am really hoping for.

I thank you very much indeed for your attention.

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