The first speaker to present was Professor Steve Dean, recently elected Chairman of the Kennel Club. This, together with his senior position in the veterinary world, allied with the fact that he is a serious breeder and exhibitor of Border Terriers made him a particularly appropriate person to lead off our symposium.

## COMMON SENSE BREEDING WITH A GENETIC FLAVOUR

## Introduction

Over the past twenty years the way animals are bred has been changing. This has had more noticeable effect on farm livestock but is increasingly changing the way we breed dogs.

What has brought about the change? Stated plainly it is the study and application of genetic science and, in particular, the discoveries unleashed by molecular biology. This sounds complicated yet science has led us to the identification of the very genes that are capable of producing disease and has provided the opportunity to control some inherited diseases in a way we were still dreaming of just two decades ago.

In the $21^{\text {st }}$ century the breeding of dogs has become a public controversy. In fact there has always been controversy but recently this was promoted into the public arena by the BBC. As with any media related reporting, the issues were unclear, unfocussed and over-stressed, but on consideration can be broadly categorised either as inherited disease or as conformational defects. However, the division between the two can be less than clear.

Nevertheless, using modern science we can now control the breeding of dogs to limit or eliminate some genetic defects but at present our efforts are limited to attempts breeding 'healthy dogs' or more precisely dogs free of specific inherited disease.
Traditionally a dog breeder selects breeding stock from bitches in their possession and the available supply of suitable stud dogs. The assessment of the likely breeding pair is based on many factors which may differ from breed to breed but most importantly the choice is determined by the ambition of the breeder. It is perhaps fortunate that we do not all see dogs the same way as this leads to the very genetic diversity that many of our critics demand. However, on those occasions where a breed focuses on a breed line excessively or a particular stud dog becomes over-popular then difficulties may well arise.

The conformation of the head is a major focus for breed type and for some can become an overwhelming feature both in terms of breeding and in the show ring. Common sense suggests that the conformation of the rest of the body is at least as important. In much the same way, in many breeds a particular coat quality is critical or it may be it is colour and markings that drive choice. However, none of this is a problem as long as a breed pays attention to overall health and soundness in whatever it chooses to aim for.

In genetic terms the traditional way of breeding a dog as described above is selection of stock by phenotype, in other words, largely how the dog appears to the eye and hands. Anybody who has attempted to breed to a standard will agree this is not easy, as there are no guarantees that pairing dogs of very similar appearance will breed more of the same. There are always compromises to be made in terms of selection too with the distance to the stud dog a significant factor.

In genetic terms, difficulty arises from the fact that most of the conformational characteristics we are hoping to reproduce from any given mating are determined by groups of genes acting together (polygenic inheritance) and it is difficult to assemble these genes in a reliable or predictable way and is most often achieved by line- breeding.

## The molecular blueprint of a dog

At the centre of nearly every cell in the body (skin surface and red blood cells are exceptions) there lies a nucleus and this contains the genetic material, referred to as 'the chromosomes'. Each chromosome is a collection of molecules laid out in a long spiral form (the double helix). The molecules are sequenced in a regular and pre-determined way with four nucleic acids repeated in sequence along the chromosome. It is portions of these sequences that are termed genes and each chromosome has many genes along its length. A final complexity to be added is the knowledge that chromosomes are paired and the genes on each of the chromosomes pair act together to exert their effect.

For example, the dog has 78 chromosomes ( 39 pairs) in each nucleus and this has been estimated represent as many as 100,000 genes. The human has only 46 chromosomes but about the same number of genes. Another important fact is that each cell in the same dog contains the exactly the same chromosomes and it is the genes they carry that determine the structure and function of each part of the body. This is fairly surprising given cells vary so much (forming kidney, liver or muscle as just three examples)

It is very easy to get lost in the science but it is the role of the molecular biologist and geneticist to unravel the science and offer advice, so from the complexity of the science, what salient facts can we use to help the dog breeder, without losing ourselves in a morass of molecular technology and acronyms?

## Phenotype and genotype

We have already seen how dog breeders use physical appearance (phenotype) to judge the quality of a dog for exhibition or breeding potential. Of course the experienced breeder also has an insight into a dog's genotype - which is the pattern of the genes on each chromosome, although they may not realise this is what they know. This is because experience of a given breeding line reveals to the observant what strengths and weaknesses exist within a dog's make up and what is likely to arise from any given mating. For example, a high incidence of seizures in a breed-line indicates there is a genetic trait in the line which leads to this disease surfacing from time to time. On a good note, breed lines that live the longest owe much of this to their genetic make-up (genotype).

The common sense approach is to breed away from dogs that produce undesirable defects which may simply mean do not use dogs or bitches for breeding that have the defect or frequently produce dogs with a defect. A breeder might also discard litter-mates as well from the breed-line or, if the practical experience points towards a particular dog or line as the source of the problem this may be entirely avoided in future breeding plans.

This works well for many defects and is in fact the approach we use when using an x-ray to assess the hips of large breeds, the scoring of which permits breeders to breed away from the worst affected dogs and concentrate on those with the best hip conformation. However this same strategy does not work so well for the so called autosomal recessive genes. An autosomal recessive gene will only cause a clinical problem when it appears on both of the paired chromosomes. Therefore if one chromosome has the normal gene and one the defective gene the dog will remain healthy because the normal gene is 'dominant'. The dog in this example is however termed a 'carrier' and breeding it to another carrier may produce some puppies that are affected by the disease ( $25 \%$ is the figure normally quoted).

It is fortunate perhaps that the autosomal recessive gene is where molecular science offers the most immediate potential. For we can now detect many of the problematic abnormal 'recessive genes' by a relatively simple test carried out usually using a cheek swab. The simplicity is in the collection of a few cells from an oral sample of the lining of the mouth. This is usually
achieved by using a slightly abrasive swab. This sample of cells permit the laboratory to detect the presence or absence of a specific defective gene in their chromosomes. Furthermore, the test will tell us if the gene is present on one or both chromosomes and therefore permit us to distinguish between an affected dog, a carrier and a clear dog.

This is a big advance for breeders who can use the science to guide their choice of breeding stock to avoid known inherited disease, something that was very difficult to do just a couple of decades ago. A breeder can therefore use even a basic knowledge of the genetics of their breed-line alongside a laboratory test and thus expand their understanding of the genotype of their dogs (i.e. identify clear, carrier or affected)

## The elimination of inherited disease

This technology therefore permits us to dream of the day where inherited disease in pedigree dogs can be eliminated and for certain diseases (PRA, liver toxicosis, CLAD) this is indeed a reality. However the dream is not yet a reality for all genetic disease and in some cases we must ask ourselves how important is it that the disease is eliminated. For example, posterior polar cataract is a small blemish in the lens of the eye which rarely affects vision, rarely progresses to a generalised cataract and if it does it occurs very late in the life of a dog when other illnesses associated with old age are likely to be a more serious threat to health and welfare. Deciding to develop a gene test for PPC does not seem to be a primary requirement and furthermore will yield little benefit in terms of health and welfare.

The development of gene tests is not so easily applied for the polygenic diseases (e.g. hip or elbow dysplasias) where many genes act in concert to achieve the detrimental effect. Work continues to find marker genes that can act as reliable indicators of presence or absence of a condition and future development of tests that have value are possible but breeders will need to learn how best to apply them.

It is also a challenge where a breed has more than one significant genetic defect. Cavaliers for example are wrestling with a heart defect (Mitral Valve Disease) and a neurological problem (syringomyelia) and this adds complexity to such an extent that for many this must seem a hopeless situation. Such challenges need considerable expert help and the breed faces a long and painful road with no guarantees of success and the tests they need to apply are expensive (MRI scans and heart testing) and as yet not entirely accurate or specific for the conditions they are designed to detect. Both examples are relatively late onset diseases too, so dogs and bitches may well have been bred from before the inherited problem appears as a clinical problem.

Yet even before a breed is faced with dealing with a gene based disease, the first obstacle is to get the breed to collectively recognise the problem and act. In some breeds for example the umbilical hernia would not be tolerated whereas in others it is considered a 'normal' defect and may even be justified as a traumatic injury at birth. The same applies to conformational defects that cause clinical disease. For example, poor eyelid conformation is accepted in some breeds yet would be penalised in others.

## Mutations and in-breeding

It is worth stating that genetic mutation is normal. It occurs spontaneously and is not always detrimental. In fact most living creatures will contain a number of genetic mutations without any apparent ill effect. However, where a mutation is selected and promoted by the breeding practice employed any beneficial or detrimental effect becomes evident. In-breeding (and linebreeding is a form of in-breeding) tends to concentrate genes of the same type and where the effect is detrimental a genetic disease or weakness may arise. Conversely, where genes are
beneficial, in breeding 'fixes' a conformational characteristic and this can be behavioural as well as conformational.
Popular sires, small gene pools, excessive in-breeding and a failure to use an out-cross judiciously in a breeding programme, all favour the promotion of significant defects when they arise.

## BREED HEALTH SURVEY

The breed health survey is perhaps the best tool to uncover the consequences of excessive conformational defects and genetic disease. Where genotype (the genetic make-up of a dog) produces a phenotype (how the dog looks structurally) that is undesirable then the sensible breeder will tend not to breed from the affected dog. Simple examples are the under-shot jaw, the kinked tail, the umbilical hernia and the undescended testicle. However, as these problems are polygenic, improvement will take many years to achieve and will see many frustrating setbacks.
Breed recognition of a conformational fault that has become part of the breed characteristics is more contentious and the fifteen high profile breeds demonstrate clearly how an obvious abnormality to one dog breeder is accepted as normal for another. Yet nevertheless once recognised as undesirable even the most extreme exaggerations can be quite rapidly improved by selection of the breeding pair to breed for desired traits or characteristics.

## OTHER TOOLS TO ASSIST THE BREEDING CHOICE

## In breeding and out crossing

In-breeding brings together similar genotypes and therefore risks compounding the presence of defective genes. Done well, it capitalises on the good aspects of the genetic code and avoid defective genes that will be detrimental to health. The commonsense approach is to line-breed where there are a majority of good characteristics on both sides of the mating but outcross where health improvements are desirable.

Crossbreeding can also be useful where there is a need to introduce 'healthy' genes and this was typified by the crossing of a Dalmatian and a Pointer to introduce the genes that prevented the formation of bladder stones which is a common condition in the Dalmatian breed. For the breed purist this was a criminal act but in terms of health it could be very useful especially where there are a high number of affected dogs in a breed. Out-breeding and cross breeding widens gene pools but must be done carefully if new defective genes are to be avoided.

## Designer breeds

One important factor has been overlooked where attempts have been made to cross breeds to produce labradoodles, bugs and jack shihts. All very amusing and apparently attractive to the public who seem prepared to pay high prices for such crossbreeds. Apart from having amusing 'breed' names, the assumption is that these crosses will be healthier but the principles of genetics works for crossbreeds as well as for pedigrees and where both breeds carry similar genes. For example, in the case of hip dysplasia in labradors and poodles, mating two high scoring dogs whatever their breed, is just as likely to produce a crossbred offspring with poor hips.

## On-line tools

The Kennel Club has provided other tools to help breeders in their choice of breeding pairs. The Health Test Finder allows breeders to see any health test results on specific dogs to aid research into the health of stud dogs and their breed-lines.

Breed Watch is another on-line facility designed for judges but useful for prospective dog owners to check out the conditions to be alert for in their chosen breeds. These are detailed as conformational defects likely to lead to adverse effects in the future.
The latest tool which is still being developed further is Mate Select. This currently allows the breeder to assess the in-breeding of the proposed Sire and Dam and to assess how in-bred their offspring might be in advance of any mating taking place. In the future a greater linkage to health data would make this tool even more powerful and in the future we can expect the advent of Estimated Breeding Values for several breeds. This is a system used to advantage in the livestock sector and will offer breeders the opportunity to assess the value of any dog in terms of breeding potential in terms of reducing inherited disease. It may offer considerable potential for the polygenic types of inheritance.

## Assured (Accredited) Breeder Scheme (ABS)

Recently renamed, the ABS seeks to provide the owner of a new dog with assurance that health and good welfare has been taken into account by a listed dog breeder. The system identifies those who are members of breed clubs, who have had success in the show ring and those considered by the peers as being breeders of good reputation. Underpinned by a code of practice this is a public facing system that directs the puppy buyer to a breeder most likely to provide them with a healthy dog.

## Conclusion

Molecular science is offering considerable value to dog breeders in controlling or eliminating inherited disease in pedigree dogs. Used sensibly alongside traditional values and personal knowledge the future can be very good for the dogs we breed. We do not have to understand the complex science to use the opportunity offered as this can be translated into simple tests and techniques for the dog breeder to use.

Following his presentation, Professor Dean answered questions from the floor. A selection of them follow.

Q Liver shunt is present in our breed. Are we doing enough by just doing the bile acid test?

A No. But it is all you have at the moment. Yours is not the only breed with this problem other small breeds have it too. It is thought that small size may have something to do with it. Unfortunately a genetic test is still a long way away and until that is available you need to use the test you have. It also acts as some kind of protection for breeders to be able to give evidence of this test if at some future time a puppy they have sold develops the problem.

## Q Do dogs produce twins?

A Yes, but it is not common. In dogs you could have a situation where a single egg will divide and produce another puppy but if it does occur it tends to produce foetal monsters with two tails or something like that.

Q If the percentage of inbreeding should be a compromise between maintaining type and breeding healthy dogs, what is the recommended percentage of inbreeding?

A Current guidance is that you should try to keep the level of inbreeding down to 12 $121 / 2 \%$.

Q The Kennel Club's Mate Select service puts the Cairn Terrier inbreeding coefficient at $6.6 \%$, but I did an exercise using a show catalogue to calculate the coefficient of those show dogs and it came to $9 \%$

A An excellent point. Only 1\% of dogs are shown, and $10 \%$ bred. The breed average is calculated using all dogs registered with the Kennel Club. We all know that there are a lot of people out there breeding Cairns who we might say we would rather not have breeding Cairns and the natural inclination is to try to get rid of them. But they are creating diversity in the breed. No doubt we would all like to get rid of so-called "puppy farmers" ie someone who breeds for money and pays little attention to health and welfare, but we should not reject all those who breed for money, but who obey all the rules of the ABS. When the KC is accused of having a "puppy farmer" on its ABS list, when we go and look at them they are quite often better than some of those who regard themselves as good breeders.

Some of these Cairns out there that you would look at and say "I don't' want one of them" could actually be your salvation because they are your route back to the place you have come away from.

So to answer your question, the inbreeding average of breeding stock is likely to be higher than that of the breed as a whole.

Q Some Scandinavian countries are restricting the use of stud dogs. Is this a good thing?

A I think it is a bad thing. It takes away from people the ability to make up their own minds. There are breeds, however, where the injudicious use of a popular sire has created problems, whereas others get away with it because the popular sire is very healthy. I don't think restricting use is a good thing, but it is important to get people to take the responsibility and give careful thought before deciding.

The next speaker was Ms Maud Hawkes, Breed Health Co-ordinator and Chair of the Cairn Terrier Health Group.

## HEALTH MONITORING AND DATA COLLECTION

## Maud Hawkes <br> Breed Health Co-ordinator

The importance of health monitoring was already realised in the 1990s which lead to the Cairn Terrier Health Watch being formed, under the leadership of Ruth Wadman-Taylor until the time of her death, when, in 2006, the Health Watch was replaced by the Cairn Terrier Health Group. Real-time health recording has therefore been undertaken in our breed long before the Kennel Club made this a requirement of all Breed Clubs in 2008. Active health monitoring is vital to gain knowledge about the general health situation in a breed and to be able to observe trends such as an increase in cases of certain conditions and also to detect any new health problem that might occur in the breed.

The Cairn Terrier Health Group tries hard to encourage owners and breeders to participate in this important gathering of information and it therefore introduced a "new owner form" a couple of years ago. This was intended to be included in the breeders' puppy packs and also to accompany re-homed older dogs. It is down-loadable from Club websites and has contact names of CTHG members. For those who are unable to download, the forms are also
available on request from Sonia White. We were also given the opportunity to advertise the health work in the Cairn Terrier Relief Fund Newsletter.

The number of phone calls and emails concerning health issues has steadily increased over the last few years, which is encouraging. It is however noticeable that very many of those contributing with valuable information are pet-owners. Breeders don't seem to be quite so ready to share any information they may have.

It is of course also tremendously important that the breeders themselves keep records on all the dogs they own and breed. Proper recording and long term or lifetime follow up of progeny is essential to assess what a breeding programme produces.

I often hear comments from people while talking about one of the conditions we have in the breed and they say "Oh, it's not in my line." But the show population is so closely bred that nowadays we can't talk about a specific line. "I have never bred a puppy with it" is another remark, but if you don't follow up to the end of these puppies' lives you won't know what you have produced.
I do receive a lot of historical information from people who ring up to say, for example, that they have a dog with Ocular Melanosis - one person had in fact had two, one after the other, and from the same breeder. She had contacted the breeder who said it wasn't in her line and the vet said it was not hereditary. I always tell people to tell the breeder about any health problem, but the breeders don't always want to know.

It is early days yet but health reporting is becoming more and more efficient. Many breed clubs (ie in other breeds) had done nothing at all until the action taken by the Kennel Club in 2008, while others have been very pro-active and solved some complicated hereditary issues. But without the cooperation of breeders providing samples for tests, the researchers can't do anything to develop DNA so it is up to you as breeders and owners to contribute information to ensure the success of any future DNA testing.

## Portosystemic Shunt (PSS)

Liver shunt, is a congenital problem ie present at birth, and hereditary.
In 2010, 352 litters of Cairns were registered with the KC. Of these less than $5 \%$ contributed bile acid test results. Either people are not having the test done, or have it done but don't send in the results.

There are two sides to this: one is an ethical one - selling puppies without having done the tests which are available; the other side is that we live in a litigious society and anyone having a puppy which turns out to have a shunt, on finding that there is a test available that was not done could involve you in an expensive legal situation.

Research is going on in Australia, the USA and Holland. There are different schools of thought and different methods but it is encouraging that effort and money are being spent towards developing a DNA test which will be invaluable. Two methods of testing are used by researchers: the ammonia tolerance test (ATT) and the bile acid test (BA). Dr Center who leads the research in the USA strongly promotes the use of BA testing, but the ATT is used in the Utrecht research. Both methods appear to give a good result but for us in the UK (and presumably also in USA) the use of ATT has practical problems since the blood has to be processed very quickly ie the veterinary surgery must be equipped with suitable lab facilities to do immediate plasma separation and analysis and not many vets here have those facilities.

The testing in the Netherlands is done typically at the Utrecht University vet school and another place with the necessary equipment. It's a much smaller country than the UK so easier for owners to reach a designated vet hospital.

BA testing is much easier to deal with since no special techniques are needed and the blood can be drawn at any vet surgery and then sent off for analysis at a testing lab.

The opinion about the optimum age for testing also seems to vary between different scientists. Some think 7 weeks is too early as puppies are newly weaned, they haven't grown so much and there is not so much to metabolise for the liver, so the results may not be so indicative. Our DNA work goes to Utrecht and they are happy with the way we are doing this here. Professor Dean pointed out that the BA testing was not strictly a diagnostic method since other liver conditions also affect the BA values. This problem is however overcome by the procedure to retest puppies with abnormal results and further diagnostic investigations are being used. No cases of congenital PSS have been reported where the puppy BA testing was normal. It is very important that BA test results and case histories are reported so that the accuracy of the testing method can itself be "tested"

## Ocular Melanosis

This problem which can lead to glaucoma in older age, is a progressively developing condition and it is important to have tests carried out every second year. The test will be available at the show here tomorrow (and indeed is normally available at the Joint show every year.)

This disease is not congenital like liver shunt, but it is hereditary. The earliest a case has been recorded was at the age of one year, but more usually it would not be until from around the age of three or later the first signs would be found. You therefore have to repeat the tests as they could initially be clear. Having the regular tests would make it possible to withdraw a dog or bitch from the breeding programme as soon as it was detected.

The results of tests on Schedule B of the BVA/KC/SDS Eye scheme, of which OM in Cairns is one, are sent to the BVA where they are collated, but they are not sent to the KC's computer base. They will therefore not appear on the KC's Mate Select.

## CAIRN TERRIER RELIEF FUND

R.C.No. 803599

PATRON: Paul O'Grady
PRESIDENT: Mrs Mary Towers

## Speaker Mrs Chris Roberts, Secretary

## Introduction

To those of you who don't know me I am Chris Roberts, as I am talking you will see on the screen photo's of some of the Cairns who have for a fleeting moment been part of one of the Trustee's lives. All of these Cairns have a story to tell, for some of them it's a story of hardship and cruelty, others it's sadness of loosing the love and affection of their beloved owner, but without a doubt I think you will also see that they are now enjoying life to the full in their new homes.

For the past 28 years I have been involved as a Trustee, Secretary \& Treasurer of the Fund, however 18months ago I managed to get someone to 'volunteer' for the job of Treasurer, so my job is now much easier.

The very first Meeting and the formation of the C.T.R.F. was well before I was involved in Cairn Terriers. It was held "at Dursley $29^{\text {th }}$ March 1969", almost 42 years ago. However I have found no written record of this meeting.

The first Minutes recorded were at Sedgley dated $3^{\text {rd }}$ April 1971 where two Trustees were elected from each of the following clubs C.T.C. Miss Peggy Wilson \& Mr A. Hogg. S.C.T.C. Mrs Armstrong \& Mrs Wadman-Taylor, and the C.T.A. Mrs Bessie Shea and Mr J.H. Dean. Mrs Armstrong (Charlie Dixon) was elected as Chairman, Mr J. Dean (Bessie Dewhurst's father) was elected Secretary/Treasurer. The first record of a balance sheet is dated $31^{\text {st }}$ December 1975 where it was recorded that the Fund was worth £683.75.

All of these names will probably mean nothing to some of you and in fact all of the people I have mentioned are now deceased. However their legacy lives on in the constitution they minuted 42 years ago, as we have kept to the general outline of the original constitution, when we registered the CTRF with the Charity Commission in 1991.

## Our Purpose

I like to call it our 'purpose', but the constitution states 'object', so
the object of the Fund is to relieve the suffering and distress of Cairn Terriers in need of care and attention.

We do this in a number of ways:-
We take Cairns that are found straying and have been taken to the local pound for the statutory 7 days, when their time is up and they're lucky, then they find their way to us.

If their owners have died and there is no one to take them in, we have them.
If their owners are too ill or are being moved into accommodation where they can't take their Cairn with them we take them

If they're being ill treated or neglected
If their owners split up and neither wants or can't take responsibility of the Cairn.
And the saddest of all, if they're no longer wanted.........."he was great as a pup, but the son/daughter is at uni now and we work and don't have the time for him"!!

We take them, some are ok to go directly to their new home, others need to be assessed, however we don't have kennels, so it's up to each Trustee to find a way of assessing them, either with that particular trustee or one of our 'helpers'.

## Re-homing

Our Club Members and our 'Friends' of the C.T.R.F. play quite a big part in the re-homing of the dogs and help out whenever they can.

Each Trustee has their own 'local' list of 'would be' new owners, who have already completed one of our questionnaires and have been put on the waiting list. From this list we try to choose which would be the right owner for the dog, in most cases we carry out the home check when we take the dog, if all goes well with the meeting then the new owners keep him on a 4 week 'approval' period and if there are no problems they will officially adopt him. If the dog doesn't settle then he comes back to us and depending on the reason for him not settling then this determines what will happen to him in the future.

We have on average 50 Cairns each year for re-homing, which isn't that many compared to some rescue places, and it is noticeable that there has been a decrease of rescues over the past 5 years when we used to get in the region of 100. I can only think that more breeders are taking their own dogs back when there are problems with them, but I wouldn't swear to this!!!

## The Friends of

The Friends of the CTRF is a branch of the CTRF dedicated to fund raising, and is governed by the CTRF constitution. Its aim is to raise enough money to buy/build/beg/borrow or steal kennels where the 'more difficult to re-home' Cairn can see the rest of its days out.

Every member pays an annual subscription fee of $£ 5$, and they each receive a newsletter, which consists of their photo's and stories, together with news articles and advice which is all relevant to the Cairn.

In recent years we have seen an increase of 'old' dogs and by old I mean in excess of $12 y r s$. Obviously these are more difficult to re-home, not because they don't settle, as I have found they settle to their new home much easier than the younger Cairns, but because of their age. People don't want to take on a dog that's perhaps only got 12 months or so to live, and perhaps some of you would say 'is it wise to put an old dog with total strangers and in strange surroundings'? In my experience it is worth it, but those homes are very few and far between, so the dog has to wait, usually at one of the Trustee's homes or with a fosterer until someone comes along to take him.

Forms are available to anyone wishing to become a 'Friend'

Mrs Sybil Berrecloth spoke on the DEVELOPMENT OF THE CAIRN TERRIER BREED STANDARD, PAST TO PRESENT Many of the points made in her presentation were appropriately illustrated with photographs and paintings.

Once upon a time in the Highlands of Scotland, there lived a race of dogs, small, hairy and short-legged. They were intelligent, brave, hardy and would take on anything.

Quite a lot has been written about the early history of the breed, some of it supposition, some speculation and some factual. But it all helps to understand how the pioneers of the breed considered it when they drew up the first Standard.* 'Fit for function' may be a modern catchphrase but it was evident a hundred years ago that the pioneers of the Cairn Terrier breed were looking to describe a primarily healthy, functional, working terrier.

Captain Macdonald of Waternish in Skye, a keen sportsman, had a large pack of terriers bred entirely for sport. He probably killed more otters than anyone living and from his long experience was well qualified to give an opinion on the best sort of terrier for sporting purposes. Some of the points he gave in 1876 included height - male about $91 / 2$ ", female 7 $1 / 2^{\prime \prime}$; length from between eyes to root of tail - male $10 \frac{1}{2} 2$ ", female $20 "$; weight - male 16 lbs , female 12 lbs. Back should be long, legs short head strong and jaw longish. Today the body length hasn't changed much but Cairns are much taller and mostly heavier, so the proportions are quite a lot different.

Although Cairns first appeared in the showring in 1909 and the Cairn Terrier Club was formed in 1910, the first Standard - headed 'Cairn Terrier Points' - was not drawn up until 1911 when, according to Florence Ross ' a very representative gathering of Cairn owners met after the judging was over at the Scottish Kennel club Show, held in Edinburgh, Waternish taking the
chair. Among those present were the Hon. Sec. Mrs Alastair Campbell, the Lady Sophie Scott, Lady Charles Bentinck, the Hon. Mary Hawke, Mrs Fleming and the writer.'

## The First Breed Standard

General Appearance (20) - Small, active, game; very hardy in appearance; strong, though compactly built. Should stand well forward on fore paws, strong quarters, deep in ribs; very free in movement; coat hard enough to resist rain; head small, but in proportion to body. A general foxy appearance is the chief characteristic of this Working Terrier.
Skull (10) - broad in proportion; strong, but not too long or heavy jaw. A slight indentation between eyes; hair should be rather full on top of head.
Muzzle (10) — powerful, but not heavy; very strong jaw, with large teeth; roof of mouth black.
Eyes (5) - set wide apart, large, hazel or dark hazel, rather sunk, with shaggy eyebrows.
Ears (5) - small, pointed, well carried, and erect but not too closely set.
Tail (5) - about 6 inches, well furnished with hair but not feathery; carried gaily, but must not curl over back.
Body (25) — compact, straight back, deep ribs, strong sinews, hind quarters very strong.
Legs and Feet - Low in leg; good, but not too large bone; fore legs should not be out at elbow, but fore feet may be slightly turned out; fore feet larger than hind; legs must be covered with hard hair; pads should be black.

Coat (10) - Coat hard, but not coarse, with good undercoat and head well furnished; in colour - sandy, grey, brindled or nearly black. Dark points such as ears, muzzle, very typical. In order to keep this breed to best old working type, any cross with a modern Scotch Terrier will be considered objectionable.
Faults
Muzzle — undershot or snipey
Eyes - Too prominent or too light.
Ears - Too large or round at points. They must not be too heavily coated with hair.
Coat - Silkiness or curliness objectionable; a slight wave permissible.
Skull 10 Muzzle 10 Eyes 5 Ears 5 Body, neck and chest 25 Legs and Feet 10 The Tail 5 General appearance, size and coat 30100

It is not known which other Cairn Terrier Club members actually had a part in this, but the yearbook for 1914 lists in the membership a goodly number of the aristocracy, a couple of Masters of Foxhounds and several military gentlemen. Not for them the fireside pet. The accent was on working terrier as is obvious from the opening paragraph. - this little chap was expected to be active, and hardy as well as being 'game' - meaning it would tackle anything, a characteristic which is still present today, sometimes to the chagrin of his owners!

The Cairn was expected to work in all weathers, hence the description of the coat - hard enough to resist rain but with a soft undercoat to keep the dog dry and warm. Depth of rib was required so that the Cairn had plenty of stamina with good lungs and heart. He had to be able to work for hours on end in all weathers.

The description of the muzzle was possibly to distinguish the Cairn from the Scottie but the requirement for a strong jaw with large teeth was relevant to his work which could mean tackling anything from a rat to a fearsome foe like an otter. Strong hindquarters, the powerhouse of the dog, are needed to enable him to work for long periods and also to help propel him into the nooks and crannies of the cairns where his prey took refuge. The six-inch tail was long enough to get a grip of if the Cairn had to be hauled out of a tight spot and of course if the tail was curled over the back it would be difficult to grasp

Some of the other points in the Standard are, I feel, cosmetic in that they are inserted mainly to point the difference between the Cairn and the Scottie. The last paragraph accentuates this difference 'In order to keep this breed to best old working type, any cross with a modern Scottish Terrier will be considered objectionable.' So they wanted to make sure the Cairn was a distinctive breed in its own right.

According to Mrs Campbell, quoted in John Beynon's book, "why we say 'foxy outlook' is to impress the wild look or look of the wild. They also have the slyness of the fox in many ways." Later she says "the best are those with a fairly short jaw and broad in the head, in fact 'foxy." Again according to John Beynon, Ch. Gesto was a notable example of a working Cairn, being 'as good on the hillside as in the ring.'

Thinking about the Cairns who were around in 1911, it is reasonable to assume that the Standard was based on those animals and their immediate ancestors.

Over the years the Standard has undergone numerous changes and amendments, some pretty minor, others quite major. It is interesting to see that in the first Standard, emphasis was very much on the body, neck and chest, which, along with general appearance, size and coat account for more than half the allotted points, although there is in fact no mention of size or weight in the Standard. This suggests that these early breeders felt that soundness was more important than appearance or perhaps these just took up more of the dog than the skull, eyes etc.

First amendments in 1916: By now it is the 'Standard of Points.' Unfortunately there is no record of this change - the CTC Minute books prior to WWII disappeared during the war. No doubt, after five years it was felt that a few 'tweaks' were necessary.

General Appearance - The first sentence is changed to 'Active, game, hardy and "shaggy" in appearance;' The word' small' has gone and the word 'shaggy' appears- they didn't want their Cairns barbered in any way.

Skull - A 'slight' indentation is changed to 'decided' and 'hair should be rather full on top of head' to 'hair should be full on forehead.' I have never quite understood why we need an indentation between the eyes - decided or otherwise. The Westie is the only other terrier Standard which asks for this and theirs is only 'slight.' Did the bit about the hair on the head come from a desire not to have the Cairn confused with the Dandie?

Muzzle -The words 'which should be neither undershot nor overshot' are added to better describe the bite. Presumably a level bite was acceptable. The description - 'roof of mouth black' disappears - Cairns today often have black on the inside of their mouths but one can see that it wasn't considered necessary in 1916.

Eyes - The description 'large, hazel or dark hazel' is changed to 'medium in size; dark hazel' Large eyes are more prone to accidental damage but Dandies have large eyes! As to the colour - well perhaps they just thought they looked nicer with dark eyes. As far as I know the colour of the eyes doesn't affect their function. What is 'hazel' exactly? The Concise Oxford Dictionary defines 'hazel' colour in eyes as reddish or greenish brown.
Tail - 'about 6 inches' becomes 'short' and 'must not curl over back' becomes should not curl down towards body.' Well, length here is relative isn't it so this was a change for the better.
Body - Addition of 'well-sprung' in description of ribs and addition of ' Back medium in length and well-coupled.' Both these changes were a move away from the slightly weedy look of some of the early Cairns. More substance was considered desirable with a deeper, longer ribcage.

Shoulders, Legs and feet - Instead of 'low in leg' a description of shoulders: 'a sloping shoulder and a medium length of leg.' This would go with the changes to 'body' as the dog would look very squat with a deep body and short legs. Instead of 'pads should be black,' we have the insertion of 'pads should be thick and strong. Thin and ferrety feet are objectionable.' I have never personally seen a Cairn, except a tiny puppy, with other than black pads so perhaps they thought this phrase superfluous.

Coat - Quite a major change here- 'Very important. Must be double-coated, with profuse, hard but not coarse, outer coat, and undercoat which resembles fur and is short, soft and close. Open coats are objectionable.' Also addition of colour 'red.' It was appreciated that to remain warm and dry the Cairn would need good insulation and the ability to shed water anyone who has ever tried to thoroughly bath a Cairn or get any kind of treatment right down to the skin will empathise with the description.

The reference to a cross with a 'Scotch' Terrier is changed to 'Scottish.' Well Scotch is whisky - at least it is in Scotland.

Faults - Muzzle - 'Undershot or snipey' change to 'undershot or overshot.' This ties in with the change to the paragraph on teeth.

Nose - Flesh or light-coloured most objectionable. Yes, well, they wouldn't look nice would they, although, again I can't say I have ever seen one.

Weight standard introduced - Dogs about 12 - 16lbs Bitches about 11 - 14lbs - a bit different from Mr Macdonald's ideas though these sizes encompassed his suggestions.

Next amendments 1922: Just a couple of minor changes.
Tail - This is changed from 'should not curl down towards body' to 'should not turn down towards back.' - gradually getting straighter!

## Weight standard - changed to 'ideal weight 14 lbs .'

Points scale is the same.
In 1927 the SCTC Standard was a mixture of old and new. Very rough in appearance, hair full and hard on forehead, still had any cross with a modern Scotch Terrier etc. and no mention of flesh or light coloured nose as a fault. No mention of weight either

1929 YB had End par. - 'any cross with a modern Scottish Terrier' ... is changed to 'any resemblance to a Scottish terrier etc.' The word 'modern' is omitted

In 1933 - 'General Appearance' was printed as 'General Knowledge' but I suspect this was a typing error. It had reverted to 'Appearance' by 1935!

In 1948 the Kennel Club wrote to the CTC to suggest a rearrangement of the Clauses in the Standard and the addition of descriptions of Characteristics and Neck. This was agreed to at the AGM of 1948 and the

1948 CTC Year Book states: In connection with the standard of points, the Kennel club have suggested regrouping as above, and this was agreed to by a General Meeting in May, 1948. To complete the picture, the meeting suggested the words in italics for consideration under 'Characteristics' and 'Neck.' The acceptance of this change will be formally put to the AGM at the SKC show in October next and this is formal notice in terms of Rule 13. Members should study this NOW. (The Colonel liked to keep the members in order)

The regrouping meant that there were now 14 clauses instead of the previous 9 .
The italicised phrases referred to state ' CHARACTERISTICS - This terrier should impress with his fearless and gay disposition. And 'NECK - well set on, but not too short' both these being additions to the existing Standard. In the sentence about the neck, the word 'too' had been pencilled in - apparently by Baroness Burton - and this remained until 1981 when the late Alick Hogg brought it to the attention of the AGM and requested that the committee give it their urgent attention, which they did and the word was subsequently removed as it had not been sanctioned by the members.

Characteristics got a clause to itself as did Mouth and Neck. Head and Skull were grouped together and included Muzzle. Forequarters and Hindquarters were listed separately from Body. The actual descriptions, however, were exactly the same, just rearranged.

By 1950 the Scale of Points had disappeared. None here will have judged to a Scale of Points but I would have thought, if strictly followed, it could militate against judging the whole animal and possibly lead to mediocrity.

Thus the Standard remained until 1981, with the addition to all Standards, by request of the Kennel Club, of the phrase "The male should have two apparently normal testicles fully descended into the scrotum"

In May 1981 the Scottish Kennel Club hosted the Second World Congress of Kennel Clubs and one item discussed was the Unification of Breed Standards. The principle involved being the production of Breed Standards for each breed which would be universally acceptable, the English Kennel Club took the initiative with their own Breed Clubs by issuing a letter giving certain guidelines for a revised Breed Standard together with a revised re-write. This report was from Alick Hogg.

The Kennel Club wrote to all the breed clubs in late 1981 offering a draft of a revised standard. As regards that for the Cairn Terrier, they required a description of Temperament and Gait; the description of the undercoat as 'resembling fur' was considered ambiguous; the correct bite was to be 'scissor' with a definition of that; the listing of faults was no longer allowed. The General Appearance clause retained the words 'general foxy appearance' though this phrase had occasioned a good deal of discussion in the past as to what exactly was meant.

The then club secretaries consulted their committees and agreed that a meeting to discuss this was urgently required before the KC foisted their own version of the Standard on the breed as their draft contained a number of anomalies.

Accordingly a meeting took place in Preston to which representatives of all five clubs were invited.

Feffie Somerfield chaired the meeting and the delegates were: (list of delegates)

| Bessie Shea | Hazel Small | Judy Parker Tucker |
| :--- | :--- | :--- |
| Phil Hayward | Willie McCulloch | Joan Harding |
| Walter Bradshaw | Albert Price | Milly Jennings |
| Alick Hogg | Jim Pollock | Jack Watson |
| Patricia Breach | Charlie Dixon | John Berrecloth |
| Peggy Wilson | Linda Firth | Mary Towers |

Bessie Dewhurst (Sally Dean \& Trevor Evans attended the first meeting)

After a couple of pretty hectic days of discussion agreement was finally reached and the Standard we have today is what was agreed at that meeting. (Present Standard)

Again, from Alick Hogg's notes: "As a delegate to this meeting I must say that I was satisfied with the whole affair and every delegate had ample opportunity to express his or her opinion on every point - wide ranging and however momentous or trivial. This to me was a great thing as I left with the feeling that every detail had been fully discussed and that an excellent job had been done."

Under Characteristics the phrase 'active, game and hardy' has been moved from General Appearance.

The word' shaggy' in General Appearance was replaced by 'workmanlike, natural appearance.' Reference to the 'general foxy appearance' was deleted.

Temperament acquired ' fearless and gay disposition' from the original Characteristics clause with the addition of 'assertive but not aggressive.'.

As the faults clause had to go, so did the phrase 'nose flesh or light coloured objectionable' to be replaced, in the clause on Head and Skull, by an unambiguous 'nose black' The words 'with a definite stop' were added.

Under Mouth was added the definition of 'scissor bite.'
In Forequarters the words 'not too large' were replaced by 'not too heavy' describing bone.
Under Body 'compact' disappeared also the expression 'strong sinews' - about which many must have puzzled in the past! 'Strong, supple loin' was added.

Hindquarters acquired a more comprehensive description from the 'very strong' previously
Under Feet the reference to 'ferrety' feet is deleted and the words 'thin, narrow or spreading' substituted. Was this because not so many people these days would know what a ferret's feet were like? Long nails are also listed as objectionable

The Tail description was somewhat expanded to include 'balanced' and 'neither high nor low set.'

The additional clause on Gait as required by the KC was inserted
The texture of Coat as 'hard' was replaced by 'harsh' and 'slight wave permissable' added.
Colour was more clearly defined with the addition of the unacceptable colours black, white, black and tan.
Nothing is of course written on tablets of stone, so it may be that some day this Standard will be revised. There are those who, may feel that parts of it do not adequately describe the modern Cairn so I look forward to hearing Linda and Jack's presentation on judging to the Standard.

The final presentation of the day was given by Linda Firth and Jack Watson who spoke about The Breed Standard.
(Some points for thought and discussion which were raised throughout the presentation are given in italics at the end of each section)

## Introduction

They set out to clarify it, discuss and identify its shortfalls, if any, to prepare the ground for a publication which would explain the Breed Standard in further detail. There were many slides included to illustrate the various points.

The presentation began with the following Kennel Club statement:
"A breed standard is the guideline which describes the ideal characteristics, temperament and appearance of a breed and ensures that the breed is fit for function. Absolute soundness is essential. Breeders and judges should at all times be careful to avoid obvious conditions or exaggerations which would be detrimental in any way to the health, welfare or soundness of this breed. From time to time certain conditions or exaggerations may be considered to have the potential to affect dogs in some breeds adversely, and judges and breeders are requested to refer to the Kennel Club website for details of any such current issues. If a feature or quality is desirable it should only be present in the right measure."

The audience was invited to consider a Cairn from early days of the breed and one of this existing today and asked if they thought there were improvements in the head, ears, stop, topline, tailset, rear, front? And what about the size, presentation and temperament?

## Breed Standard

The presenters then took each clause of the standard in turn, explaining each and offering points which the audience might consider and discuss.

## General Appearance

"Agile, alert, of workmanlike, natural appearance. Standing well forward on forepaws. Strong quarters. Deep in rib, very free in movement. Weather-resistant coat"

Agile - a Cairn should be able to move around with quick and easy movements and be supple, lithe and flexible enough to turn around/twist in a very small space. Bred for working amongst the rocks (or cairns)

Alert, of workmanlike natural appearance - ready for anything, on his toes all the time
Head - held in a natural position, ears pricked
Tail - not between his legs, should be upright
Shown - naturally on a loose lead, not stacked
Presentation - not overtrimmed, coat not scissored (rugged not ragged)
Standing well forward - this implies a well developed brisket and no indication of an upright upper arm. When viewed from the side you should be able to see the outline of the chest in front of the legs. The words also indicate that the Cairn should be ready for anything, that he carries some importance and stature.

Strong quarters - again the working origins come to the fore and many of you will say that as most of us no longer work our Cairns then is this really important? As long as we breed with the working origins in mind then we shall not go far wrong. Strong quarters means a well bent stifle and a well muscled rear, the back end should not collapse when pressure is placed upon it. The depth of the rib cage gives strength to the body shape. Free movement is essential. It goes with the agility mentioned earlier.

Ribs - a good depth of rib will give plenty of room for heart and lungs which are important for stamina. The depth of the rib cage gives strength to the body shape.

Free movement - not stilted or hackney, covers the ground well. This goes with the agility mentioned earlier.

Coat - not open, profuse and of correct texture to stand all weathers and protect the body from brambles etc whilst out working.
(The US Standard goes a bit further than we do. "Dogs should be shown in good hard flesh, well muscled and neither too fat nor too thin. Should be in good coat with plenty of head furnishings, be clean and combed, brushed and tidied upon ears, feet, tail and general outline. Should move freely and easily on a loose lead. Should not cringe on being handled."

Would it be helpful to include something in our standard about showing on a loose lead, and not stacking?

The only time "balance" is mentioned is in relation to the tail. As judges we tend to refer to balance with regard to the whole dog, irrespective of size. Most Cairns in the ring nowadays weigh more than the standard says, and are bigger, but they can still be balanced)

## Characteristics <br> "Should impress as being active, game and hardy"

Impress - this word stresses the importance of the characteristics of the Cairn. Should be full of life, inquisitive, strong, robust, courageous. He should be happy, mischievous, into everything, enjoying life, taking notice of his surroundings. Should not be timid.

Game and hardy - implies that he should be a working terrier or at least capable of doing some work. Also implies that he should be fit and not overweight.
"Fearless and gay disposition; assertive but not aggressive."
Brave - be able to stand up for himself, have a mind of his own, not a lapdog
Not shy - confident, shouldn't retreat from other dogs, humans
Wary - wariness with strangers and strange happenings shows intelligence
Defend - should be able to defend himself when threatened but should not cause aggression

A big dog in a little body!
(The Cairn should be able to stand up for itself - there is a difference between aggression and assertiveness. Any wariness of strangers or strange occurrences shows intelligence)

Head and Skull
"Head small, but in proportion to body. Skull broad; a decided indentation between the eyes with a definite stop. Muzzle powerful, jaw strong but not long or heavy. Nose black. Head well furnished."

Small - furnishings can make the head appear much larger than it really is. Wet the head through to see

In proportion to body - this was inserted to make sure that the Cairn kept a Cairn-like head and did not have a head like a Scottie or any other breed. It should be in proportion to the rest of the dog.

Skull - wider than foreface. Broad and slightly domed, width between the ears
Stop - This is the break in profile between the skull and the muzzle. Should be a short and sudden rise and not a gradual slope. A well defined stop means that the cavities for the eyes are so placed as to make the eyes look sunken and this improves the expression.

Muzzle - needs to be able to hold on to prey. If it is too short, the dog may have small jumbled teeth.

Jaw - strong for working purposes, medium jaw, not too long or heavy.
Balance of the head - tip of ears and the tip of the nose should form an equilateral triangle

Nose - must be black
("Head small, but in proportion to the body" Is this description sufficient to allow one to picture what it should be like? The people who drew up the standard were keen to differentiate between the Cairn and other terrier breeds. For example they didn't want the Cairn to have a head like a Scottie., so described it as "small"

Some Cairns may look as if they have a big head, but much of that is furnishings and judges need to feel through the furnishings to determine the true size of the head)

## Eyes <br> "Wide apart, medium in size, dark hazel. Slightly sunk with shaggy eyebrows"

Wide apart - if you have a broad skull and a good stop then the width between the eyes should be correct. If the skull is narrow the eyes will be too closely set.

Size - medium. Neither a boot button eye nor a large eye.
Colour - dark hazel (burnt sugar) colour. Can be slightly adjusted to allow for coat colour. Not black.

Shape - not mentioned in the standard but should be almond/oval shaped, not round
Slightly sunk, not protruding
All the above add to the expression
(Many will agree that the appeal of the Cairn is its eyes and the expression in its eyes can't really be described on paper. Their shape is not mentioned in the Standard but the consensus seemed to be that they should be "almond" shaped. The colour - "dark hazel - should any explanatory booklet say that the colour could differ with some coat colours? The general opinion was that it should not. Some coats become darker in time and if the lighter eye colour was allowed it would look very out of place. "Wide apart" - if the skull is broad enough, they will be)

## Ears

"Small, pointed, well carried and erect. Not too closely set nor heavily coated".
Small - not large
Pointed - not round at the tip - removing hair from the top third of the ear helps accentuate the shape - should feel like velvet

Well carried - hooded, bonneted ears are wrong. Should be just off the vertical. Should not stick out sideways nor be too close together.
(The ears should not be on the side of the head. Some people favour that as they think it gives the appearance of a greater width of skull)

## Mouth

"Large teeth. Jaws strong with perfect, regular and complete scissor bite ie upper teeth closely overlapping lower teeth and set square to the jaws."

Teeth - tend to be smaller now than in the past; lucky to find 42. Although not ignored, premolars are not given so much importance here as they are on the Continent. Teeth should be evenly placed.

Scissor bite needed to hang on to prey
Carriage of head - neck plays this important role. Should carry the head proudly with style and ease, not at back level nor at 90 degrees to the back

Flow of neck - should be a nice flowing line from the head to the well laid shoulders
Length - medium, not over exaggerated or swan like. In proportion to the rest of the dog but not stodgy. Should have flexibility to turn in a small place.

## Forequarters

"Sloping shoulders, medium length of leg, good but not too heavy bone. Forelegs never out at elbow. Legs covered with harsh hair."

6 functions of the forehand
to support weight
to absorb concussion or shock, from movement and jumping
to propel the body in twists and turns
to rectify balance
to help or even control or maintain the level of the centre of gravity digging
What it is not responsible for is propulsion in movement. Incorrect construction of the forehand will cause incorrect front movement

## Shoulders

Get the point of the shoulder blade at the withers and imagine a vertical line downwards. If the line falls down to the tip of the elbow then the shoulder placement is OK. There should be sufficient layback of shoulder. The top of the shoulder blade should not come into the base of the neck.

Upper arm is also important. Angulation and length of upper arm should be equal to that of the shoulder blade. The Cairn is an earth dog and so the upper arm is important for digging. If the upper arm is short or badly placed this will restrict movement.

Brisket is important for a Cairn to go to earth in a restricted space. A Cairn will work with brisket on the floor with freedom of the upper arm. There should be depth and strength.

Clean shoulders - desirable, shoulder lying close to the rib cage.
Loaded shoulders - not desirable, overloaded with muscle either over or under the blade. If there is a gap between the two shoulder blade points (over the withers) then there is a fault with the muscle and the shoulder blades are pushed outwards. The front is therefore widened or out at the elbows.

Leg - this word "medium" again. A short legged dog would not be able to work. Elbows should be parallel and legs straight when viewed from the front. Depth from the withers to the brisket should be about equal to the length of leg from brisket to the ground.

Bone - medium bone, not too heavy making a solid, heavy animal, nor too light making him a weed

Coat on legs - should not be soft or long

## (Body <br> "Back level, medium length. Well sprung deep ribs; strong supple loin."

Back - topline should be level both standing and on the move
Length - dependent upon there being the correct ratio between ribs and the loin. Height from floor to withers should be equal to the length of back from the withers to the root of the tail.

Loin - the part between the ribs and the pelvis. Too long a loin would give weakness in that area. Too short a loin would mean a lack of flexibility and movement would be restricted. Need good form muscle to give correct working of hindquarters.

Ribs - ribs are attached to the spine and enclose the lungs and protect the vital organs. To give room for the lungs to expand the ribs should spring out well on each side of the spine. 9 to the breastbone, 3 attached to the $9^{\text {th }}$ and $13^{\text {th }}$ is floating.
(Back should still be level on the move. Ribs should be heart-shaped. As a rough guide, the height from the floor to the withers should equal the distance from the withers to the base of the tail. Ribs should be deep enough to reach the elbow "a bit of dog in front of the legs")

## Hindquarters <br> "Very strong muscular thighs. Good but not excessive bend of stifle. Hocks well let down inclining neither in nor out when viewed from the rear"

Hindquarters are the source of power and locomotion
Pelvic Bone - the bone linking the hindquarters to the spine. Important - incorrect length and angle affect movement. The end of the pelvic bone could be described as the sit point. Ideal angulation of pelvis is about 30 degrees. Should stand with the same angulation behind as in front. Width of sit point important as we don't want narrow hindquarters.

Croup - where the pelvic bone begins going down to the tail.
Upper thigh - between pelvis and lower thigh. Carries the main muscle in the hindquarters. Quality of muscle on thighs gives power in rear movement.

Stifle - the joint between upper and lower thigh. A well bent stifle is essential as this means that the lower thigh is of good length. Should not be exaggerated so that topline falls away and hindquarters are stretched out behind. The hindquarters should be set beneath the Cairn and well collected so that the topline is level at all times with no falling away over the croup.

Hock - between lower thigh and back leg. Hocks should move parallel. If turn inwards they are cow hocked. Hocks should be short and well down giving more stamina.

Patella (knee cap) - attached to the lower thigh by strands of ligaments. If muscles passing over knee cap to lower thigh are slack or grooves in upper thigh not made correctly then the knee cap can slip out of place - (slipping patella)

Feet
"Forefeet larger than hind, may be slightly turned out. Pads thick and strong. Thin, narrow or spreading feet and long nails objectionable."

Front feet - may turn out slightly for digging but they should never turn inwards
Pads - well cushioned, required to absorb the initial shock of the foot hitting the ground. Heel of the pad makes first contact.

Toes - thrust delivered by toes therefore short nails essential
(The feet are the only part of the Cairn on which it is permitted to trim with scissors)

## Tail

"Short, balanced, well furnished with hair but not feathery. Neither high nor low set, carried gaily but not turned down towards back"

A continuation of the spine, low set tail means incorrect angulation of pelvis
Length - tip should not be higher than tip of ears, spoils general balance if longer or too short.

Shape - an inverted carrot from base to tip
Position - five/ten past twelve or upright
Dislike banana Tails
No lumps or bumps on tail
(Good tails have to be bred for and are highly prized, with position and length being important. It is difficult to "breed out" a wrong tail.

We say "carried gaily". We accept this yet criticise a 'gay' tail. Is this expression now outdated?)

## Gait/Movement

"Very free-flowing stride. Forelegs reaching well forward. Hind legs giving strong propulsion. Hocks neither too close nor too wide."

## Back movement

Correct movement is parallel, with a little distance between the two legs
Strong propulsion is essential to give the dog drive
This comes from the correct bend of stifle, good muscle tone and the hocks being of correct length and well let down

Should be able to see pads of rear feet and front feet when moving away. This shows that he can flex his hocks and has drive in the rear.

## From the side

To get the free flowing stride the quarters, both fore and hind, must be well constructed
There should be no bobbing up and down, no disturbance of the topline
Should pass over the ground with all parts of the anatomy in complete harmony
The feet should keep close to the ground avoiding excessive bending of the joints
The forelegs should reach well forward, but no goosestep, and the rear legs provide plenty of propulsion

Short steps front and rear are inefficient and energy consuming
Any suggestion that the back feet touch the front feet resulting in crabbing would be a serious fault. As in rear quarters no sideways movement of the front quarters.

## Front Movement

The forelegs should be straight with no slackness at the elbow
The ankle joint should flex on the move
No pinning, plating or paddling
(Dogs do not move in straight lines and neither do legs. If dogs moved parallel, they would rock all over the place. The whole ambition of movement is to keep the head steady. If you watch a wild animal move, their pads tend to the mid-line, and the faster they go the closer they come to the mid-line. The leg doesn't go backwards and forwards, but swings slightly out and goes back in again. If you think about the forelegs, this must happen because as the leg goes forward the chest is narrowing and the muscle must pull the leg in so when the dog is moving away from you, you don't see the front legs moving because the back legs are covering them.)

## Coat <br> "Very important. Weather-resistant. Must be double coated, with profuse, harsh, but not coarse outer coat; undercoat short, soft and close. Open coats objectionable. Slight wave permissible."

Double coat

Harsh (not coarse or wiry) outer coat to protect form brambles etc
Short soft undercoat for warmth
Finger and thumb - natural outline
Scissoring - penalised except on feet
Over-preparation
Rugged but not ragged
(There was some discussion about the difference, if any, between "harsh" and "coarse")
You very seldom see a profuse coat nowadays. It was suggested that trimming started when people began to go from here to the Continent to judge, but it is also a sign of the times in that people have fewer dogs and in order to be able to keep them in the ring, the coat has to be kept short.)

## Colour

"Cream, wheaten, red, grey or nearly black. Brindling in all these colours acceptable. Not solid black, or white, or black and tan. Dark points such as ears and muzzle very typical."

4 basic colours, brindling in all
They can change colour
Dark points - , should not penalise when not present

## Size <br> "Approximately $28-31 \mathrm{cms}$ (11-12 ins) at withers, but in proportion to weight ideally 6 - 7 kgs (14-16 lbs)"

Cairns now bigger
Latitude, bone and muscle reflect in weight
Balanced
(Very few dogs meet the Standard size nowadays. If they fit the Standard now they look small in the ring.)

## NOTES ON THE GENERAL DISCUSSION

The idea behind holding today's event was to enable us to have some idea of what we want our point of view to be at the World Seminar. Below is a summary of a few of the points raised.

## Appearance

How does the British Cairn stack up against those from other countries? Are we happy to see it go down the road of the exaggerated rears, lotions and potions etc?

In some of the Scandinavian countries they have altered the outline of the dog. Some of that is due to presentation, but not all. They are very eye-catching, but are they Cairns?

It is conformation we have to look at - balance and size, and coats. So far as smart, not badlooking show dogs are concerned those on the continent are good. The worry is that they may be getting too far away from the old type of Cairn - and we have too.

What about presentation. Are we going to do anything about the use of products - or in fact CAN we? We can advocate that these things should not be used, but if the Kennel Club are condoning it, what control do we have?

## Health

One thing we have found on the continent is that they are doing excellent work on health
It was felt by those attending the last World Symposium in Sweden that there was too much emphasis on health. What other things would you like to see discussed apart from health?

## The Standard

Some would like to see all countries to adopt the breed standard of the country of origin.
All the countries in the FCl are supposed to adopt the standard of the country of origin. That leaves virtually the United States. It completely fell down in the USA because the breed clubs own the standard not the American Kennel Club. The AKC didn't seem to be able to put any pressure on them

The USA might be prepared to adopt the standard if it was changed in some way.
Our Cairn hasn't changed much over the years. Some of those in the 1940s, say, would still do well today if trimmed slightly differently.

The best thing would be to have a basic standard, and an explanatory booklet. Could we commission someone to draw a skeleton of a Cairn, clearly labelled with correct terms?

There was agreement that the delegates would like the standard to stay "basic", enabling judges to interpret it as they see it.

## Education of those new to the breed

New people say that they want to learn, but this is only done gradually by showing and breeding for many years.

There was some discussion on the use of internet forums. It was felt that while they were very useful sources of information in some respects, it was wise to be cautious as some of the information given out was inaccurate.

The best start newcomers keen to learn about the breed could have would be to join a breed club. If there is sufficient demand, a breed club could try to arrange a learning event, not necessarily geared towards those who wish to show.

