

## Way Back When

August 1, 2011 by Leandra Little, AKC Gazette Breed Columnist

On the typical four-generation pedigree, my most recent breeding looks like a complete outcross. Not one dog's name is repeated on either side. This is called an "open pedigree." There are however a few kennel names in common and I know what is "behind the bitch"—more names in common.

But it wasn't until a ten-generation pedigree analysis was done that the decision was made to go forward with the mating. Part of the 21st century breeder's toolbox, this kind of computerized in-depth scrutiny can be crucial. There are several programs which make such an analysis easy. In this case we used Breeders Assistant.

But before the ten-generation analysis, I drew up by hand a 6-generation circular pedigree (also available from Breeders Assistant). A circular pedigree is a more visual representation where the ancestors are shown as a series of concentric rings. The hypothetical litter is the bulls eye, the parents are the first ring, grandparents, the second and so on. Once the names are input, the user can then highlight those in common. Using several colors brings the picture into much better focus than a traditional rectangular pedigree.

Before computers, breeders relied on close line-breeding and in-breeding to fix type. Recently I was given a 1978 pedigree book compiled and edited by Joan Redmond Read with Julie Sturman. It includes some of breed's foundation pedigrees. The strategies of the last century's breeders are made evident on each page.

Here's one short description: "Bigger Banger's dam, Sarah Gamp, is a litter sister of his grand-sire (\*on the sire's side), Rogue Riderhood. His two grand-dams, Miss Manette and Tatty Coram are littermates and this pair are also his great-granddams. Miss Manette was the first prick ear champion and her sire, Smudge was the first show winner after breed recognition."

Here's another for Whinlatter Cracker of Turtillus: "One of the breed's all time producers with seven titled Whinlatter get, six being her double descendants. ...bred to her nephew Ch. Whinlatter Tryd, she produced Eng. Am. Ch. Clippa .... In '57 bred to son Cob, she produced an outstanding bitch, Ch. Whinlatter Coral and in July '58 she whelped the immortal Ch. Whinlatter Charade sired by her grandson Int. Ch. Whinlatter Allercombe Hiker ...."

Yesteryear's breeders followed templates set out by such giants as Lloyd C. Brackett who has been described as one of the fathers of the German Shepherd in this country. His successful strategies could apply to any breed and are still being used. Brackett started building his Long-Worth Kennels in 1912. By the 40's he experimented with and then advocated "mating animals who are closely related to the same ancestor...in other words ...by using for parents dogs who are closely related to that ancestor, but are little if at all related to each other through any other ancestors." In his treatise Planned Breeding Mr. Brackett adds that when a breeder maintains that a particular dog is "line-bred," his immediate question is "Line bred to what?"

In my case the line-breeding is to the immortal Ch. Royal Rock Don of Chidley who appears as the third dog on the pedigree analysis right after the parents. He appears no less than 41 times delivering 28.2% of the puppies' genetic quotient. In other words he is contributing more than any of the four grandparents. Thanks to early breeders, "out-crossed pedigrees" may be anything but. Don had an

in-breeding coefficient of 20% but there are many as high as 40% in the background. Modern science has shown us that the Norwich Terrier's "genetic cloud" is rather diverse. This makes a healthier dog but causes issues of type. The early breeders followed Brackett's strategy to counteract this. But we are still coping with fixing type.

Reading the complete text of Brackett's work should be basic homework for every breeder. His maxim is "Physical compensation is the foundation rock upon which all enduring worth must be built." That is, you must begin with the best bitch possible and choose the most superior specimens as studs. Therefore, the first principle to learn is exactly what a good specimen of a Norwich Terrier looks like. There are some studs and bitches past and present who exemplify the breed, and are line-bred; study photos and sit ring-side... a good place to start.

Next time we'll look at the influence of the maternal grandsire, "stick-dog pedigrees," vertical pedigrees and a different approach to breeding which maintains genetic diversity.

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