

# The Monnig Meteorite Collection Numbers Revisited



by Arnaud Mignan and Blaine Reed

*“Monnig collection numbers are intriguing, perhaps almost magical. Those little daubs of white paint are a window into the past, a tangible link with researchers and collectors who have gone before us”*

– Geoff Notkin, *Hand Painted: A History of the Monnig Collection*, in Ehlmann (2008)

Oscar Edward Monnig (1902-1999), lawyer by training and CEO of his family’s wholesale and retail business in Fort Worth, Texas, is renowned for having amassed one of the most important private meteorite collections of the 20th century and for his many contributions to the fields of astronomy and meteoritics<sup>1</sup>. The Monnig Collection is housed by the Texas Christian University (TCU), in Fort Worth, where a gallery exhibiting selected specimens from the collection opened to the public in 2003 (Kunetka, 2003). There are few references on Monnig’s life except for the short biographies in the preface of the two Monnig collection catalogues (Ehlmann, 1996; 2008) and his obituary (Ehlmann and McCoy, 1999; Williams, 2000). Some details can also be found online, on the TCU Monnig Museum website (<http://www.monnigmuseum.tcu.edu>) and in the biographical archive of The Tricottet Collection (Mignan, 2011). One can learn more about



Figure 1: A recent re-discovery – A Deport meteoritic iron with hard-stamped Monnig number 1AD (110 grams, TC71.2). Courtesy The Tricottet Collection.

Monnig’s personality and collection habits by exploring the Meteoritics literature (e.g., Monnig and Olivier, 1931; Monnig, 1946; Ehlmann, 2000) and the Monnig manuscript and correspondence archive<sup>2</sup>, part of the TCU collection (see selected letters and excerpts of Monnig’s diary in Ehlmann, 2008).

A recent discovery, or re-discovery, made by co-author and long-time meteorite dealer Blaine Reed, provides a new glimpse into the Monnig Collection. Reed acquired, in November 2010<sup>3</sup>, a group of Deport irons that were mislabeled as Odessa meteorites. These came from an undisclosed source, a former friend of Monnig. To Reed’s amazement, some of these specimens carried intriguing hard-stamped codes formed of the number 1 followed by one or two letters. These specimens are now distributed over several private collections, including The Tricottet Collection, which is owned by lead author Arnaud Mignan (Figure 1). Table 1 provides the list of the specimens and their present whereabouts. Reed’s labels that accompany each Deport iron summarize this rare find of significant historical value:

“These important specimens are among the very first that Oscar Monnig catalogued for his collection. These were labeled by having a flat spot ground into them and then metal punches were used to apply their catalog number. These all were labeled in the same style as very early Ninger specimens; a number for the locality (number 1 in this case for Deport - the first locality entered into Monnig’s collection) followed by a letter for the order in which the specimen was cataloged (A for the first, B for the second and so on). The curators at TCU had no idea that Monnig had ever used such a system of recording and labeling until these pieces were discovered in a batch of what were supposed to be Odessa specimens. Inspection of their Deport specimens revealed, though, that they indeed had at least one similar labeled specimen. This was an 1158.7 gram Deport individual (now labeled M1.1 and considered the collection’s “first specimen”) that has the metal punched label 1B.”

This numbering scheme seems distinct from what has previously been published, making it timely to revisit the Monnig Collection cataloguing and labeling system. This should give a better insight into Monnig’s early collection and hopefully a guide to rediscover other forgotten meteorites from this celebrated collection.

It should first be noted that the entire Monnig collection was donated to TCU over a period of several years, from the mid 1970s to the mid 1980s, when Monnig retired from collecting. He hired Glenn I. Huss and his wife Margaret<sup>4</sup> from the American Meteorite Laboratory (AML), who spent over a month at TCU in 1981 to catalogue and label his collection. Glenn Huss continued helping with the organization and

Table 1: Catalogue of the Deport meteoritic irons with hard-stamped Monnig number 1\*.

Monnig No.	Weight (g)	Chain-of-custody
1	1A 245 + 306 (cut)	OM / ? / BR / D. Gheesling
2	1B(M1.1) 1,159	OM/TCU
3	1C	
4	1D Tot. 2,500 with 1AF	OM / ? / BR / MM / D. Rose
5	1E	
6	1F 185	OM / ? / BR
7	1G 140	OM / ? / BR
8	1H	
9	1I	
10	1J	
11	1K	
12	1L 80	OM / ? / BR
13	1M 155	OM / ? / BR
14	1N 254	OM / ? / BR / MM / M. Noda
15	1O 1103	OM / ? / BR / D. Gheesling
16	1P	
17	1Q 144	OM / ? / BR
18	1R 189	OM / ? / BR / MM
19	1S 162	OM / ? / BR / MM
20	1T	
21	1U 261	OM / ? / BR
22	1V 251	OM / ? / BR / MM
23	1W 485	OM / ? / BR
24	1X 229	OM / ? / BR
25	1Y	
26	1Z	
27	1AA 194	OM / ? / BR / MM / M. Noda
28	1AB	
29	1AC 188	OM / ? / BR
30	1AD 110	OM / ? / BR / A. Mignan (Tricottet Coll.)
31	1AE	
32	1AF Tot. 2,500 with 1D	OM / ? / BR / MM / D. Rose
33	1AG 595	OM / ? / BR
34	1AH	
35	1AI	
36	1AJ	
37	1AK	
38	1AL	
39	1AM	
40	1AN	
41	1AO	
42	1AP 190	OM / ? / BR / MM

\* Chain-of-custody with OM for Oscar Monnig, BR for Blaine Reed and MM for Matt Morgan, Mile High Meteorites. The question mark refers to an undisclosed source. An extended catalogue, including other meteorite localities, is available as Supplementary Material at [http://www.thetricottet-collection.com/pub\\_met\\_MonnigNumbers\\_suppl\\_Table1.html](http://www.thetricottet-collection.com/pub_met_MonnigNumbers_suppl_Table1.html) (cataloguing ongoing, at present including Monnig #1, #12 and #32).

identification of some of the specimens until his death in 1991 (Ehlmann, 1996). Huss specimens from the AML carry white hand-painted inventory numbers starting with an H (for Huss), followed by two numbers separated by a dot. The first set of digits corresponds to the meteorite location and the second one to the specimen number (Huss, 1976). Huss used the same cataloguing



Figure 2: Meteorite specimens de-accessioned from the TCU Monnig meteorite collection. All carry so-called “Monnig numbers” although they should be referred to as TCU-Huss numbers since the labeling was done by Huss during the handover of the Monnig collection to TCU. Knyabinya M56.6 (15.5 grams, TC95.1), Pultusk M57.15 (9.6 grams, TC27.22) and Mighei M63.1 (0.7 grams, TC90.1). Courtesy The Tricottet Collection.

Table 2: The first 32 entries in the TCU-Huss cataloguing system and correspondence with early Monnig numbers.\*

Meteorite locality	TCU-Huss number	Monnig number
Deport, TX, USA	M1	1 (hard-stamped)
Holbrook, AZ, USA	M2	-
Melrose, NM, USA	M3	-
CeeVee, TX, USA	M4	-
Plainview, TX, USA	M5	-
Cleburne, TX, USA	M6	-
Odessa, TX, USA	M7	-
Toluca, Mexico	M8	-
Kirbyville, TX, USA	M9	-
Pasamonte, NM, USA	M10	-
Paloduro, TX, USA	M11	-
Tulia (a) / Dimmitt / Kaffir (c), TX, USA	M12 / M138 / M140	12 (painted)
Canyon Diablo, AZ, USA	M13	-
Harriman, TN, USA	M14	-
Shafter Lake, TX, USA	M15	-
Crescent, OK, USA	M16	-
Somervell Co, TX, USA	M17	-
Glen Rose, TX, USA	M18	-
McKinney, TX, USA	M19	-
Troup, TX, USA	M20	-
Round Top (b), TX, USA	M21	-
Travis County, TX, USA	M22	-
Uvalde, TX, USA	M23	-
Tatum, NM, USA	M24	-
Junction, TX, USA	M25	-
Kimble County, TX, USA	M26	-
Nazareth (a), TX, USA	M27	-
Floydada, TX, USA	M28	-
NWA 1949	M29	-
Allen, TX USA	M30	-
Silverton, TX, USA	M31	-
Kendleton, TX, USA	M32	32 (painted)

\*Only 3 different Monnig numbers have been found through our investigations: #1, #12 and #32. Note that most meteorite localities are from Texas, the state where Monnig spent all his life.

system for Monnig specimens, but with the H replaced by an M. These so-called “Monnig numbers” are hereafter referred to as TCU-Huss numbers (Figure 2). Correspondence between TCU-Huss numbers and meteorite localities is provided by the two Monnig catalogues (Ehlmann, 1996; 2008).

Collection numbers from the hand of Monnig are much rarer and usually consist of large, upper-case white digits and characters on a black rectangular background (Figure 3a, b). On other specimens, there is no black background (Figure 3c). Before the discovery of the hard-stamped Deport irons, Monnig numbers were believed to be coded references for the names of the ranchers from whom Monnig acquired each particular piece. This is stated by Geoff Notkin, science writer and co-star of the acclaimed Meteorite Men TV show, in the introduction part of the 2008 Monnig catalogue (Ehlmann, 2008). However, it now appears that they are not codes for ranch localities but numbers in alphabetical order. In that view, meteorites 12AG, 12AV and 12P shown in Figure 3 would simply correspond to the 33rd, 48th and 16th specimens from locality number 12. Why were these codes believed to be references to ranchers’ names? The more likely source of confusion is that both Tulia stones (M12) and Dimmitt stones (M138) carry the same number 12. However, this can simply be explained by the fact that Monnig incorrectly labeled Dimmitt specimens. Huss (1982) noted:

“Specimens in many collections may be incorrectly labeled as Tulia or as Dimmitt when they may belong to the other fall (...) Comprehensive study of the 430 Tulia-Dimmitt meteorites from the Monnig collection now at Texas Christian University in Ft. Worth should be undertaken.”

This is what Huss later did, which explains the discrepancy between some Monnig and TCU-Huss numbers. In some cases, erroneous Monnig numbers were erased (pers. comm., Anne Black, 2011). Fortunately, this destructive action has not been systematic! Noteworthy mid-20th century meteorite hunter, Eugene Cornelius, is supposed to have used a combination of digits and characters to refer to specific parcels of lands from the Wellman strewnfield<sup>5</sup>, which could have been another reason to believe that Monnig numbers followed a similar pattern. To get a definite answer, the lead author asked Notkin about the origin of this statement. He gladly explained that Prof. Arthur Ehlmann, curator of the Monnig-TCU collection until 2009, told him so. The author then contacted Prof. Ehlmann to investigate a little more. Ehlmann answered that it was only based on speculations. What is known is that Monnig started using capital letters to catalogue new Tulia/Dimmitt meteorite acquisitions that were purchased from ranchers. He became overwhelmed by sheer numbers of specimens, however, and abandoned his early system<sup>6</sup>. Monnig apparently planned to keep track of all these Texas finds with locations, weights, etc. in a notebook<sup>7</sup>. It turned out that many, or perhaps most, of the stones that he acquired did not have any specific location. Individual ranchers had numerous pieces and even had pieces given to them by other ranchers.

To conclude, it is very likely that Oscar Monnig used a similar labeling system as Harvey Nininger did, as already indicated on Reed’s Deport labels. After all, the two men corresponded as early as in the 1930s (Monnig, 1967; Nininger, 1972). A mystery still remains<sup>8</sup>. Why would only Deport specimens (#1) and Tulia/Dimmitt specimens (#12) carry Monnig numbers? In fact, a thorough investigation led the lead author to find a third example: the Kendleton meteorite, TCU-Huss number M32 and Monnig number 32! (see examples in the Supplementary Mate-

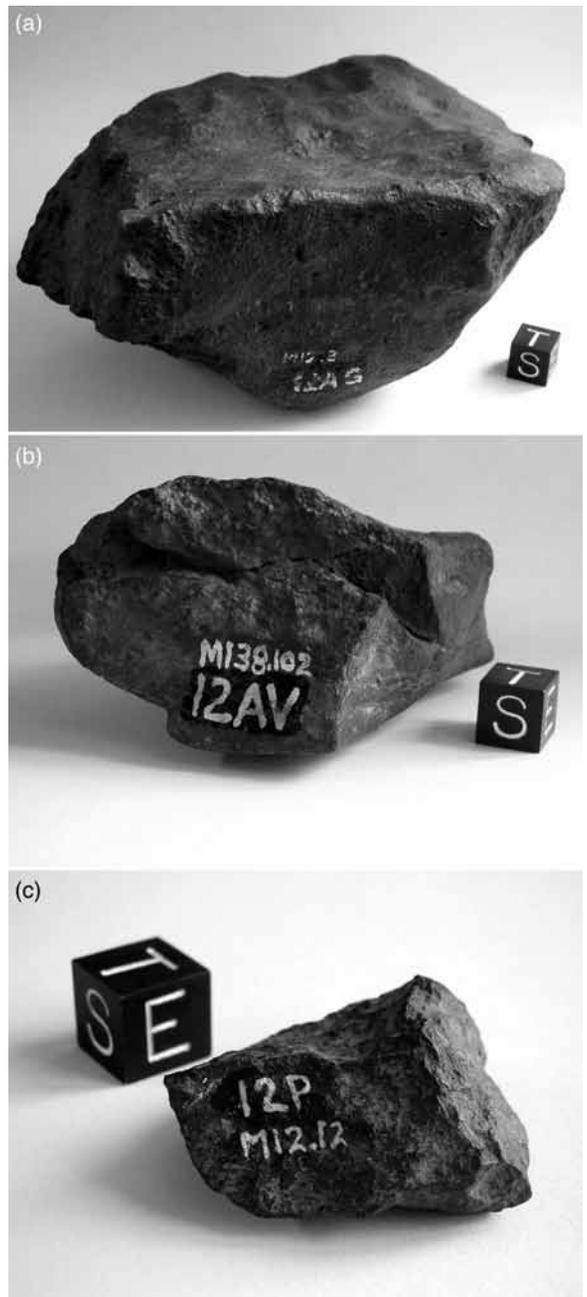


Figure 3: Stony meteorites with early Monnig numbers. (a) Tulia (a) 12AG M12.2 (1272 grams, TC13.2); (b) Dimmitt 12AV M138.102 (222 grams, TC29.2); (c) Tulia (a) 12P M12.12 (15.2 grams, ex. TC13.3, now W. Schroer Coll.). All of these specimens also carry a TCU-Huss number contrary to the Deport iron of Figure 1, which never made it to TCU. Courtesy The Tricottet Collection.

rial, [http://www.thetricottetcollection.com/pub\\_met\\_MonnigNumbers\\_suppl\\_Table1.html](http://www.thetricottetcollection.com/pub_met_MonnigNumbers_suppl_Table1.html)) Did Monnig abandon his numbering system at number 32? What about meteorites numbered 2 to 11 and 13 to 31? (Table 2). Ehlmann confirmed that no other meteorite locality represented at TCU carried an original Monnig number. However, one may wonder. It was only after a thorough investigation of the Deport irons held by TCU that hard-stamped specimens were indeed found, about 30 years after the collection was donated to TCU (Table 1). Meteorites hidden in some drawer at TCU or elsewhere in some cellar of old Monnig acquaintances may still deliver new secrets about

the Monnig Collection in the future.

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### Footnotes

1. Monnig helped recover new meteorite falls and old finds, some of which may have been lost to science without his thorough investigations (e.g., Monnig and Olivier, 1931; Monnig, 1946). He was a Charter Member and Fellow of the Society for Research on Meteorites (later the Meteoritical Society), serving as both a councilor (1941-1950, 1958-1966) and secretary (1946-1950) (Ehlmann and McCoy, 1999). He also founded the Texas Observers astronomy club and published and circulated the Texas Observers Bulletin. The asteroid 2780-1981DO2 was named 2780 Monnig in recognition of his significant contributions to astronomy (Williams, 2000).
2. See also letters from Monnig in the manuscript & correspondence archive of The Tricottet Collection at [http://www.thetricottetcollection.com/archive\\_manuscripts\\_MonnigOE.html](http://www.thetricottetcollection.com/archive_manuscripts_MonnigOE.html)
3. This first lot contained about 3 kg of irons. Reed obtained a second and last lot of Deport specimens from the same source in May 2011. Both lots contained stamped and non-stamped specimens.
4. Daughter of famous self-taught meteoriticist Harvey H. Nininger.
5. See examples of parcel codes on Wellman (c) specimen cards from Eugene Cornelius in the label archive of The Tricottet Collection at [http://www.thetricottetcollection.com/archive\\_labels.html#CorneliusE](http://www.thetricottetcollection.com/archive_labels.html#CorneliusE)
6. It goes the same with Deport meteorites, with more recent specimens only carrying a TCU-Huss number.
7. No notebook containing an early Monnig catalogue made it to TCU (pers. comm., A. Ehlmann, 2011). One can only wonder if Monnig ever started taking notes on his early acquisitions.
8. Another unresolved question regards the TCU-Huss cataloguing. How did Huss order the meteorite localities? By acquisition date, with the help of Monnig? Randomly? Note the exact match between Monnig numbers and TCU-Huss numbers for Deport (#1), Tulia (#12) and Kendleton (#32) in Table 2.

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### About the authors

Dr. Arnaud Mignan is a Geophysicist, specialist in earthquake predictability. His interests also include the history of science and of natural history collections. He is the owner and curator of The Tricottet Collection ([www.thetricottetcollection.com](http://www.thetricottetcollection.com)) and is the recipient of a 2012 Harvey Award “for his work with The Tricottet Collection, and meteorite preservation and research.” Contact address: [tricottetcoll@live.com](mailto:tricottetcoll@live.com)

Blaine Reed has been studying meteorites for 40 years, collecting them for over 30, and a dealer for just over 25 years now. He lives with his wife (Linda), a couple guinea pigs and a small Chihuahua in Delta, Colorado.

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