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A Tekke torba, with recent radiocarbon date analysis

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Mini-Salon 32: Pinner and Franses Revisited: Animal Tree Ensi Research in the Age of the Internet

By Chuck Wagner



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July 24th,
2017, 03:38
PM

#1

[Chuck Wagner](#)
Administrator

Join Date:
May 2008
Posts: 134

A Tekke torba, with recent radiocarbon date analysis

This thread is included to encourage discussions on other non-ensi Turkmen pieces that may be of general interest to readers.

Several years ago, there was an extended discussion on Martin Andersen's old Tekke torba, with a follow-up thread after he received his radiocarbon results. Links to these threads are:

http://www.turkotek.com/misc_00098/border_1.htm

http://www.turkotek.com/misc_00113/tekke.htm

I had an opportunity to acquire this 6 gul Tekke torba some time ago. It has several unusual features, and a color palette somewhat different than many Tekke pieces. Regarding the palette and design, Jim Allen offered the opinion that it is typical of pieces from the Akhal Oasis, and that the piece was probably very early 19th century.



Unusual design elements include the small diamonds around the tertiary and chemche guls, the rare checkerboard fill elements, the bright blue in the major guls (better seen from the back), and the unusual orientation of the short diagonals on the chemche guls.



The only other example I have seen of the short diagonal orientation is at the far left side of a piece posted in Martin's thread, from a torba sold by Kaminski Auction House:

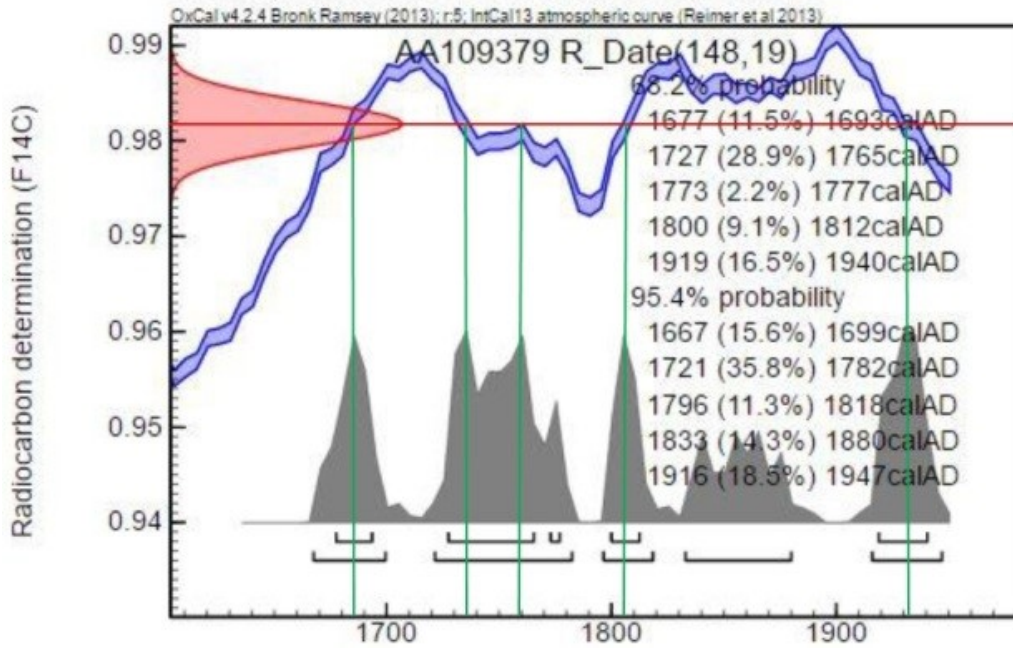


Online comparisons with analog pieces from auction houses, and email discussions with other acquaintances motivated me to send a wool sample from the torba for radiocarbon dating, even though it was pretty clear from the homework that the piece was not of sufficient age to be dated unambiguously.

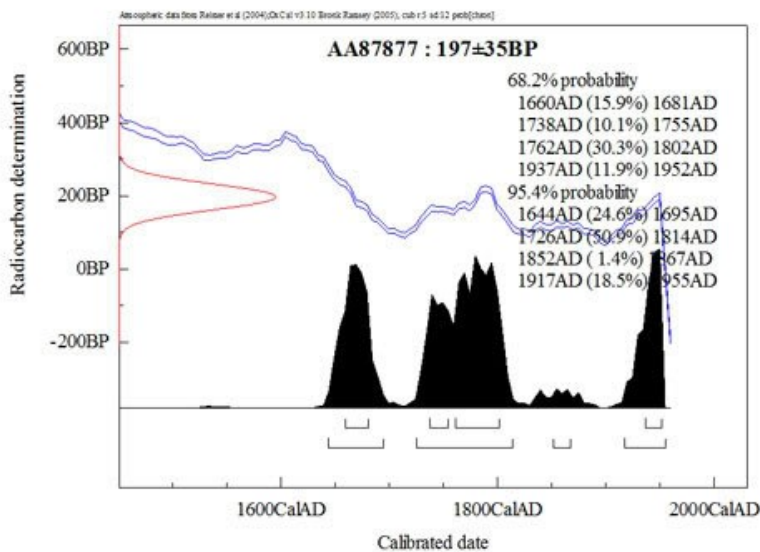
Along the bottom edge of this torba, there is a convenient divet that exposes the wefts, so I separated 3 weft samples and sent them to the radiocarbon dating lab at the University of Arizona for AMS radiocarbon date analysis.

The result is shown in the chart below. I believe it is safe to ignore the 20th century dates. The next most recent likely date range is 1802 plus or minus 19 years:

Results	
$\delta^{13}\text{C}$ ($\pm 0.1\text{‰}$):	-17.1 ‰
Fraction of modern carbon:	0.9818 \pm 0.0023
Uncalibrated ^{14}C Age:	148 \pm 19 years BP
Calibration Program / Dataset:	OxCal 4.2 / IntCal13 atmospheric
Calendar Age Range (68%):	1677 calAD to 1940 calAD
Calendar Age Range (95%):	1667 calAD to 1947 calAD



For comparative purposes, here is the result from Martin's torba:



Regards
Chuck Wagner



AM

[Rich Larkin](#)

Members

Join Date: Jun 2008
Location: Massachusetts
Posts: 130



August 2nd, 2017, 04:24 AM

[Chuck Wagner](#)

Administrator

Join Date: May 2008
Posts: 134



August 5th, 2017, 09:11 AM

[Kay Dee](#)

Registered

Join Date: Nov 2014
Posts: 27



August 6th, 2017, 01:41 AM

[Chuck Wagner](#)

Administrator

Join Date: May 2008
Posts: 134



Hi Chuck,

I know your focus here is on the radiocarbon dating of your torba, but I would be interested in an estimate of the knot count.

Nice, mellow piece!

Rich



#3



Hi Rich,

The knot count is quite variable on this piece, as is the thickness of the various colored yarns and the tightness of the spin.

On the average, it is 11 H x 22 V = 242 kpsi.

Regards
Chuck



#4



If I may be so rude to ask, but given I have some rugs that I'd like to find a definitive +/- date on, how much does the carbon testing cost that you had done Chuck?

Email me off-board if you would rather than post here.

TIA.

Kay



#5



Hi Kay,

No need to go off-board for this. Most textile samples require extra, and careful, cleaning. With no rush on the order it's about \$450, a rush order is more. You can see more details on their website: <https://ams.arizona.edu/>

I found them to be very responsive and very helpful.

Keep one thing in mind; you won't get an unambiguous date unless the

sample predates about 1650 AD. Note that on the chart for my torba the line intersects the tree ring date band (blue) in four places and grazes it at a fifth. Any one of them could be the correct one. Without additional independent corroboration there's no way to nail the date down definitively.

I discount the 20th century dates on my piece, figuring that it is possible, but unlikely, that someone forged a piece like this, or copied an old design using just the right yarn. But I doubt it. It could be as early as 1680 or as late as 1821. I'm satisfied with a turn-of-the 19th century placement.

Also, remember that there is always some risk of contamination, particularly if a piece has been chemically washed - thus the requirement for extra cleaning steps, and careful sample selection. In my case, a two inch long weft sample was sufficient for analysis.

Regards
Chuck Wagner



August 6th, 2017, 09:19 AM

#6

[Kay Dee](#)

Registered

Join Date: Nov 2014
Posts: 27



Thank you VERY MUCH for your detailed reply Chuck!



September 14th, 2017, 05:25 PM

#7

[David R E Hunt](#)

Members

Join Date: May 2008
Posts: 3

Tekke or ?...

Hi Chuck

Nice to see this one again! So you are the lucky owner :). To be honest, the colors and especially the variability of the weave suggest a certain Kizil Ayak in my collection. Ditto these diamond shaped tertiary elements sprinkled about the field. My understanding, rudimentary as it is, would state that the Kizil A are in fact related to the Tekke, if memory serves?...

Dave



September 17th, 2017, 08:18 PM

#8

[Chuck Wagner](#)

Administrator

Join Date: May 2008
Posts: 134



Hi Dave,

I am not personally aware of any research that - via genetics - links the Tekke and the Kizil Ayak.

One could easily imagine a situation where tribes displaced or relocated by Khans or Soviets exist in close proximity, or are co-located, and as the geezers die off, the intermarriage process could result in localized connection.

But historically, not a link I am familiar with. Elena Tsareva was kind enough

to take a look at some images and agreed with a Tekke attribution. But, to be fair, she didn't handle the piece, and, the Kizil Ayak question was not raised in the context of this piece.

Jim Allen has noted the diamond fill motifs on other older Tekke torbas, and it's his sense that they represent arrows (via personal communication).

Regards
Chuck



February 19th, 2021,
01:51 PM

#9

[Martin Andersen](#)

Members

Join Date: Jul 2008
Posts: 104



Hi Chuck

Congrats with the very nice torba, and thanks for posting your c-14 results. Sorry I am late to the thread, I mainly look around the "Virtual show and tell" department at Turkotek.

Since you posted this Jurg Rageths publication have given us some luckily unambiguous c-14 results which confirms that also extant Tekke pieces can be seriously old, at least 17th.c - and perhaps even as old as 15th.c.

Here the three most clear Tekke results:

The Hoffmeister torba is unambiguously 17th.c or older, as old as 1449+/- (I have taken the liberty of desaturating a bit, the original photo is as far as I can see colorwise rather unrealistic) :



Dating	
Lah. no.:	ETH-17366.1/2
Radiocarbon age:	375 ± 35 y BP
Calibrated age ranges:	AD 1449–1535 (57.9%)
(95.4% confidence limit)	AD 1552–1640 (42.1%)

The Tekke germech. Almost unambiguously 1670 or older (actually a possibility of as old as Columbus discovery of America). Personally I think it's fair to disregard the 0,1% late peak :



Dating	
Lab. no.:	FT14-18900.1/2
Radiocarbon age:	290 ± 35 y BP
±σ:	-20.7 ± 1.0
Calibrated age ranges:	AD 1492 - 1611 (67.1%)
(95.4% confidence limit)	AD 1613 - 1670 (32.7%)
	AD 1792 - 1792 (0.1%)

And a Tekke main carpet. The late peak is small, only 3,9 %, but it might leave room for some debate:



Dating	
Lab. no.:	FTH-2557/11/273
Radiocarbon age:	275 ± 30 y BP
Calibrated age ranges:	AD 1502–1508 (0.8%)
(95.4% confidence limit)	AD 1517–1605 (50.7%)
	AD 1620–1673 (44.7%)
	AD 1787–1802 (3.9%)

Results like this will have some impact on how I personally estimate age when I look around the rugs, I will have to try do some re-calibration in my head. Most of the Turkmen collectable rugs I will probably still think are 19th.c (and that's certainly old enough). But a lot of older published age estimates are made before any c-14 test were made, and they probably were to cautious in some cases (of course some dealers are not cautious *at all* 😊).

Personally and subjectively based on its general layout I think the early peak of the Hoffmester torba is the most likely, and that sure stretches the timeline a lot of other rugs. Of course there are very few very old rugs, but the conservative convention of some to place almost none before 19th is obviously not wright.

I of course respect a lot that you choose to be cautious in your settling on around 1800 for your own torba. It is obviously based on your personal experience including judgement of feel, texture and color in conjuncture with the c-14 result.

And it would be great to see some more c-14 test with full results here on Turkotek .

Best Martin

Last edited by Martin Andersen; February 19th, 2021 at 02:20 PM.



February 19th, 2021,
05:09 PM

#10

[Martin Andersen](#)

Members

Join Date: Jul 2008
Posts: 104



Hans Elmby published this chuwal in 1990. He labeled it "Yomut?" and described it as atypical in design and technique, and from an undefined group. As the cautious dater he was, he dated it "early 19th. c". He didn't date any rugs in his first catalogue as older than that.



Rageth has now published it with an unambiguous c-14 result placing it among the oldest extant turkmen weavings. And the group is now defined as Qaradashli.



Dating

Lab. no.:	ETH-27368.1/.2
Radiocarbon age:	365 ± 30 y BP
Calibrated age ranges: (95.4% confidence limit)	AD 1448–1529 (50.8%) AD 1548–1634 (49.2%)

Elmby was cautious in his datings, but he sure had excellent taste and knew what to publish.

best Martin

(the difference in colors just shows how little colors in photos and reproductions can be trusted)

Last edited by Martin Andersen; February 19th, 2021 at 05:15 PM.



February 24th, 2021,
11:39 PM

[Andrew Leng](#)

Members

Join Date: Aug 2018
Location: Suffolk
Posts: 11



February 26th, 2021,
11:53 PM

[Chuck Wagner](#)

Administrator

Join Date: May 2008
Posts: 134



#11



Martin,
The Hoffmeister Torba fig 40 and the Tekke Germech fig 35 are both carbon dated in the Hoffemister book (pdf) and they agree pretty well with Rageths dates.
Andrew



#12



Hi,

This Salon will be archived shortly, but we can continue a conversation in a Show & Tell thread if desireable.

Regards
Chuck

