Jade Material - Observations and analysis

LRN:

Accession No. F19.58

Period Neolithic
Culture Liangzhu

Checklist name Pi,disk

Object term

Mineral(jade) nephrite
Color
Hardness -
Texture
Mineral Inclusions
Veining features +
Burned surface -

Translucency -
Color +
Luster +
Class of Alteration II

Munsell-Unaltered 5G3/2-6/4
Munsell-Altered
Munsell-discoloration

XRD

FTIR sample taken Oct.30,95 W-D; 3/4/97 JD
FTIR done WG 6/1997
Fe to Fe+Mg ratio

SEM sample taken Oct.30,95 W-D
SEM done
SI sample possible

Sample location at the broken boarder

XRF Data

SiO2	54.858	**MnO**	0.062
CaO	10.195	**FeO**	3.915
K2O	0	**Cr2O3**	0.023
TiO2	0.032	**NiO**	0
		MgO.Al2O3	30.914

Comments artifact was broken

Date in
Date mod 4/24/2008

F19.58

JADE/Spectrum # 217

EDXRF ANALYSIS
SPECTRACE INSTRUMENTS

PROCEDURE	: NEPHRITE - HE		
FILTER USED	: NO FILTER	TUBE VOLTAGE	: 15 KV
ATMOSPHERE	: AIR	TUBE CURRENT	: 0.99 MA
COUNT RATE RANGE	: MED	LIVETIME	: 100 SEC
ANALYSIS METHOD	: FUN. PARAMS.	PRESET COUNT	: 0 K

TIME : 4:19 am DATE : 10/29/95

SAMPLE	ELEMENT	CONCENTRATION		ERROR
F19.58.1				
	SIO2	54.858 %	+/-	0.4689
	K2O	N D		
	CAO	10.195 %	+/-	0.0701
	TIO2	0.032 %	+/-	0.0123
	CR2O3	0.023 %	+/-	0.0080
	MNO	0.062 %	+/-	0.0068
	FEO	3.915 %	+/-	0.0259
	NIO	N D		
	C	0.000 ADDED		
	MGO	30.914 DIFF		

-unaltered area

F19.58

JADE/Spectrum #218

EDXRF ANALYSIS
SPECTRACE INSTRUMENTS

PROCEDURE	: NEPHRITE - HE		
FILTER USED	: NO FILTER	TUBE VOLTAGE	: 15 KV
ATMOSPHERE	: AIR	TUBE CURRENT	: 0.99 MA
COUNT RATE RANGE	: MED	LIVETIME	: 100 SEC
ANALYSIS METHOD	: FUN. PARAMS.	PRESET COUNT	: 0 K
TIME : 4:23 am		DATE	: 10/29/95

SAMPLE	ELEMENT	CONCENTRATION		ERROR
F19.58.2				
	SIO2	57.978 %	+/-	0.4749
	K2O	N D		
	CAO	11.872 %	+/-	0.0747
	TIO2	0.060 %	+/-	0.0127
	CR2O3	0.037 %	+/-	0.0087
	MNO	0.079 %	+/-	0.0074
	FEO	4.834 %	+/-	0.0299
	NIO	N D		
	C	0.000 ADDED		
	MGO	25.141 DIFF		

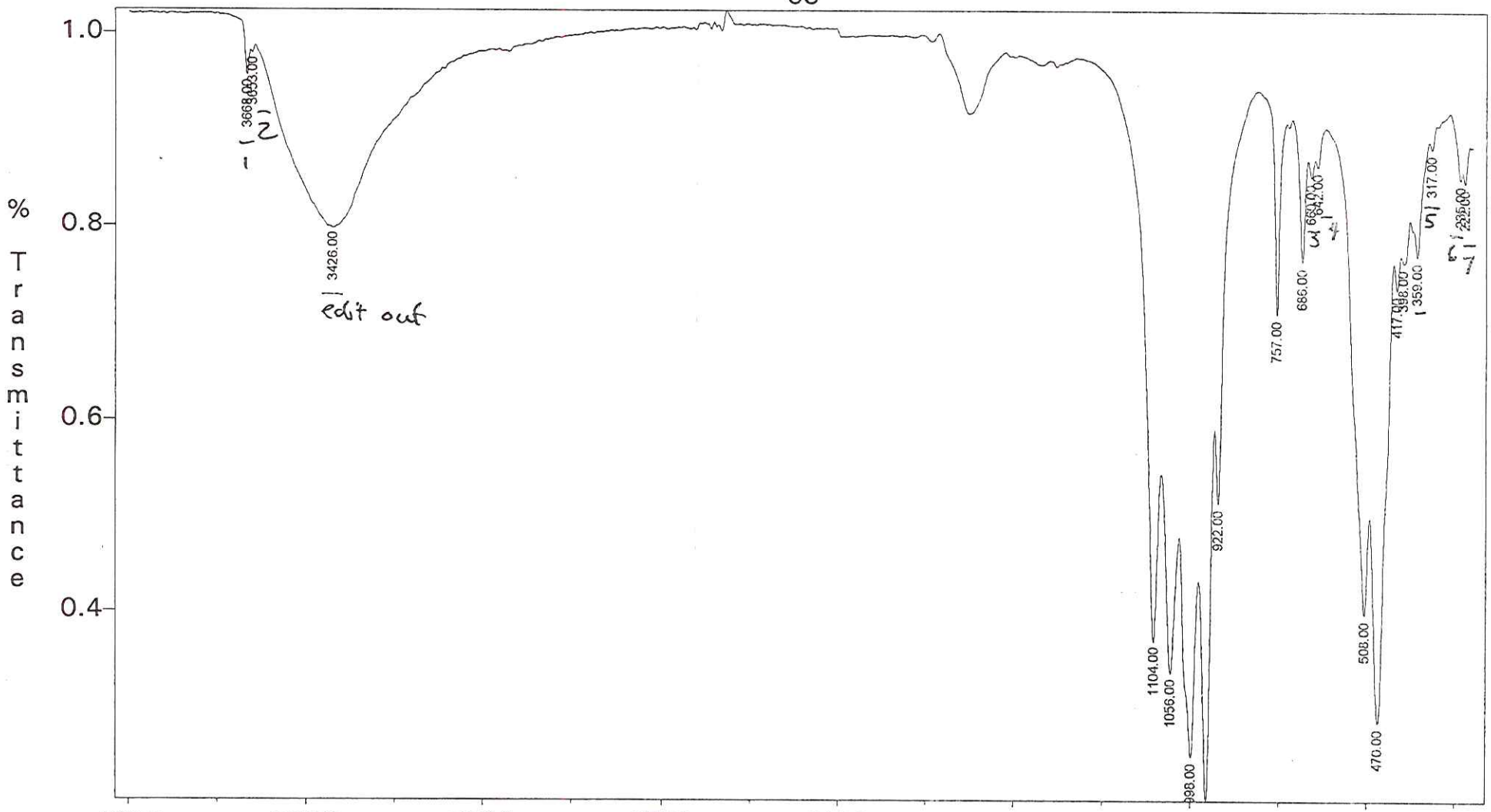
- unaltered area

F19.58

Enhancement of the emblem

The emblem was enhanced on this bi using Carbowax PEG 1000 and TITANOX titanium dioxide. The method of application is discussed in the notes for F17.348.

Janet G. Douglas
September 25, 1998



1. .95
2. .97
3. .85
4. .86
5. .87
6. .84
7. .84

F1919.58
IR Analysis
Wen, G.
1997