

Crabtree (imitation propagation) ----- (mination)

Born Heyburn, Idaho 1908

At 4-5 yr old given arrowheads by neighbor woman

Living in Salmon Idaho until ca 6 yrs old

Father had 40 acre farm on Falls Avenue - ^{Snake} ~~Snake~~ ^{monopoly} ~~Snake~~

Simplet was dehydrating potatoes

12 or so Salmon @ 1 1/2 yrs old - Father farm south of Salmon city

in pay for errands. the river the Indians

the power co.
the Beth. Steel Co.
U. of Cal. (Berkeley)
the farm

Father spoke of taking Don on stage coach down along Salmon river - as it whiffed stones into the river & bounced along on its leather grips.

School wagon drawn by 2 horses

When subject of sports at school came up

his father would say if he didn't get enough exercise, he should work more on the farm. Every chance he had he took to run away into the Snake River Canyon and imitate the Indians. found fossil bones of elephants and was ever looking for arrowheads there too.

He did learn to shoot and fish and it wasn't long before he tried to shape chalcedony into arrowheads using heat & water drops - no way! Was only able to do crude chipping and about this time learned that heating chalcedony in the kitchen oven followed by slow cooling he could get the chalcedony to chip more easily.

Salmon city was a mining town at the head of the Salmon River which eventually empties into the Snake and was known to the Indians as "river of no return". Don has little recollection of these days but does remember a mixed intrigue and fear of them.

Many years later he did come to know ^{an Owyhee Indian} ~~one~~ called Johnny Crow whom he asked to tell him how Indians made arrowheads. Johnny's ^{was} answer "Indians no make arrowheads - Indians find arrowheads. Coyotes make arrowheads".

One of the favorite pastimes of the natives when Don got away from the farm was searching for arrowhead materials which he could compare these materials for flaking - and working it. The ~~discovery~~ ^{discovery} of heat-heating for easier working of chalcedony was a secret he kept to himself for many (3) years. ~~and~~ Even when he divulged it in the 40's almost no one would accept it.

Dec. 24, 1914

During high school years the exposure to biology and chemistry made ^{for} considerable ~~impact~~ ^{new, exciting} thinking and ^{for making mummies!} of possibilities. Indeed a doctor friend gave him chemicals, ~~eg.~~ formaldehyde. ~~which~~ He used ~~this~~ to preserve a frog he'd caught. Indeed he thought it would be a good idea ~~to even get a frog.~~ So having learned that covering a non-conducting material with graphite powder made it conducting, he covered his frog with graphite powder and ^{made a} Copper plate ^{frog mummy!} ~~the~~. He became somewhat disappointed with this accomplishment when the frog began to swell and smell, ~~and he~~ ^{he could only} concluded that he'd not used enough formaldehyde on the frog.

And so it was not surprising to find that he also fed his nature study with experimenting on explosives: the sensitive mercury fulminate and making his own cap pistol caps from charcoal and potassium chlorate --- until this blew the hammer off the pistol. Though he knew how to make nitroglycerine, he never tried it because the purification seemed very dangerous to him --- as it would be. However, such exposure to the chemical nature of things led him to explore the sensitivity of his favorite materials, flint and chalcedony to various dyes and chemicals. To his astonishment, ^{some of} the bandings in ~~the~~ chalcedonies were ~~often~~ ^{often} ~~found~~ able to take up dyes and chemicals and other bands in the same rock were not! Why not? ~~He~~ To this day Don wishes he knew the answer to that.

ce. 24.14.14.2

① Don Crabtree Falls Ave (property on)
Method for Producing
Simplex Lehigh Potat. - Father 40 acres there Hayburn
1908. Born at - Addison Smith at Twin Falls 7th Ave East
4th 6 yrs old

Previous in Salmon, Idaho - woman gave 120 or so
aron pts. given betw. 4 & 5 yrs old for doing errands
Always ran away into the canyon - imitating indians
Catch fish, dig clams, shoot a few birds

school wagon drawn by 2 horses - sch. hse - auditorium
was near where Palos drug store
Working on the acreage (truck garden) -> cucumbers/pickles
almost pickle monopoly in S. Idaho.

Used kitchen oven and cooked flint, chalcidony -
clipped and found chipping easier. 6 yrs. old.
Drops of water on hot flint -> no way can this flake - it
shatters. (Heat slowly & cooled slowly) as in sand bath

~ 1916. ~~Salmon City~~ - mining town head of Salmon River
Chamberlain Basin now

Captain Gould took supplies to miners

"Father ^{said he} rode me on a stage coach whipping stones into the
Salmon River. Leather springs - some bull"
(Before Twin Falls) (boy - we didn't get along)

Two sisters one older, one younger - we got along

Remembering Upper Salmon? (that's where there's now a power plant (confusion)
and Gene started w. Pwr Co. as long as he can remember
He gets special training by pwr co.

Hebron -> Salmon -> Farm south of Salmon City - Now - indians ^{great} admir
Born 1 1/2 yrs. & intrigue & fear about Indians
The river of no-end (falls) ^{Indian don't make}
Flung ^{Indian} ^{don't} ^{make} ^{em}
"Cogates make'em"

Co. 24. 14. 143

(1) cont. ^{don Crabtree}
Indiana A-wal-ee from south (J. Cron) ?? Lge county nr. Twin Falls
Dwyhee river - S. of Boise

Knowledge of & interest in flaking - always looking for material &
working the flint - also hopeful of finding arrowheads in connection
with fossils of big animals

during
G.D. & H.S.
int. in chemistry
(coll. friend gave
him chemicals)
made mummies
(frogs)

flower gold
covered frogs w. graphite dust & a plated
snuff. 1000 in frog & it kept expanding
Hg fulminate, ~~nitroglycerine~~, ^{also dangerous} NI₃?
KClO₃ + Charcoal for cap pistol - blew the hammer off.
used dynamite 'tho

Permeable & impermeable chalcedonies

Metallic sodium in the h.s. sink - broke some glassware
xtal set in a walnut, made small motors.
couldn't afford head set so used telephone receiver -
father wouldn't believe it - oatmeal boxes

Learned to weld @ pur co. - later used it for jewelry

In winter - Crown Mfg Co. - jewelers who sent him to learn
diamond setting (never done diamond cutting) or any
faceting - ex. by eye.

Making earrings tried him out as monotonous because there
were two of them.

Rubies heated went black & then cooled & became red again
"as black as coal". (Heat enough to weld white gold)

Garnets so delicate
Turquoise is also so so bad

1 1/2 yrs @ Idaho Pur Co.

After H.S. (1931 grad.) supposed to in 1930 but lacked a credit
worked on a cattle range in St. Geo. Utah. -> then

No football - if I needed more excuse ^{- father paid} I should have to work more
used to like hauling

ca. 24, 14, 14, 4

(2) After S. Utah worked for father then w. power co. - all kinds

25y10

1933-1938

Any new machine - he'd learn about it
with power co. - 1/2 yrs @ U. Cal. - developed cancer -
hospital 8 mos. of overdose of something (83#) - bad transfusion
but recovered & on survey. Driving f. Power Co. - pumps broke loose
& bar, hit in testicles (caused ~~by~~ cancer)
Scrambled his time sequence

After sold a motel - then real estate
motel after marriage

Long Beach - '33 after exams; didn't go back

Went to Columbus after wking on N. section and prev. recovery
then to NY and then Wash D.C. (Smithsonian - all civil servants) - then
back home - wking w. father? - Nat'l Guard - taken by 1st induction
about 4 yrs. of to be or not to be - Beth Steel - whd on 1st destroyer
3 tons of blueprints (he could read as result of wking w. a surveyor)
test runs of destroyers, skipper night reg. changes. in finally launching
Met Evelyn dur. Beth Steel period. Again exposed to all kinds
of mechanical & work

4 yrs there - jewelry work - ??

Mr. Peters had water co. @ Grand - & he was int. in gold coins etc., Don
brought back all kinds of materials, minerals and when moved into small
hse he had to sell rocks/crystals. Obsidian in Ore. Hamath Falls (colored rainbows)
Purchased all kinds of rocks to ch workability. Local Gem & Mineral Soc.
plague - after motel years.
Bother-in-law & Don

19 Dept. of Agric - Surveying & Eng agent

1964 Les Egies - last of Nov. - almost froze to death in Paris
Conference

Western pointyology

March 1965 started w. PSU museum - all it was supposed to be w. tapes - focusing
but all he knew then filming @ Burbank, narration

Le. 24.14.14.5

4 (cont.) Date of "The First American"?

NY - & Gale (Warren)

(Lucy Lewis Johnson at Vassar) He'd make up his own words to sing
"Bordes been here 3 times" Mother was an opera singer - his
happiest days here. He was first to find
Friends all over:

W. of Calgary

Hobby -> profession every little gain contributed from everything he did.
A system of learning (unlike schooling).

5. Can't use notes - ad lib. - is led by audience reaction but she
discomfort of the intro. and glad when it's done. Need tension to speak
well.

Never come out ahead but it's been exciting - sure honoraria
The heart attack seemed like the end of the world (while at
Dept. of Agriculture - @ Millner's Dam - driving mules - rush back to
go to Arco - in motel arms ached - roads washed out - straddled
ruts - feeling worse & worse - boy on a trail bike - he felt he had
to quit. - They took to hospital - & they were ready for him but
he couldn't make it back: hazy in chest - after - distress - what
future - how to make a living.

A demo up there (ISU) / Hansen sugg. a demo, and it turned
the trick - then suggested the new/old world experts since Logwood
get together at Les Egges. NSF. --- saw Dr. Leetan in Hawaii & Allen Smith
Lithic Lab - --- He went to Les Egges. They had a land rover
to take him to caves - Jeff Harrigan - perm job.

Living fr. ISU. \$4500 limit bec. of his pension (Gov't) \$200/mo. ^{Disability pension} Civil Serv.
Evelyn work full time - even took tapes fr. Les Egges and Audfild
voices as well as transcribed. Showing speeches discussions etc.

never published, however.

6 Building for repaving Diesel 99. Evelyn said, Warren - can handle both
another building for trucking. Found tenant doing groc. store supply business
truckng - also gov't in some. Built building for Gov't Serv. provides some funds

Le 24.14.146

8. (cont.) This case is "Robert Cressé", put improving w. panelling
put in bath his self.

A Judge Coffin - Tolson point. Nat. museum - collection Roberts
Wash. DC. is all w. " " . Only last stage of flaking is all
that's evident. Polishing 4 or 5 stages; platforms etc. don't find
the flakes. Round platforms in debitage - in Clovis

In Mississippi valley beveled pts. - fix to shaft, ground,
no flaking debitage - Now finding & using the debitage (flaking).

How to make fabulous cores - planers, wedges, other
instrument. How to get long blades. Long prisms when conchoid is
^{expected}

Mark Harrington - ground top - how to handle
following ridges to control the flake. Japan & Turkey & Africa
& from Tikal. No longitudinal from American - ex. Hopewell in Ohio
but not polyhedral

Polystyrene/Plexiglas - tried Lucite - couldn't get it to fracture
too rubbery - but not tried after cooling

Va. Commonwealth U. - Sony Callahan ^{1904/1900} to make chipping instead
~~cut~~ of using deer antler (1 1/2" diam) Bordes likes it,
No lge antlered animals in S. America so what did they use to do
their beautiful work?

7. Gene Titmus - Davis Titmus ^{How} got interested ^{Humboldt} - ^{Shoshone} Falls. Worked @ Shoshone
Falls - found chips (after being in service) etc. and really got interested. Developed
his own chevron-like chips on his own - but it is found all over Mexico.
Left-handed? Examples from Mexico (Pechuka?). S. of Guadalajara - Langdon
collected there. Some are percussion joints in this group. Elephant bones
in the Snake river canyon.

Siliceous Chalcedony ^{agate, flint} core yet to be made - heat treated
blade like flake from heated vs unheated - microscopic work to do on
their sharpness. How to tell difference of sharpness.

624.14.14.7

7. cont.

Novaculites - blackness after heat treatment & heat tint gives shattering!

Mostly al.!! Plastics, Metals chip

Obsidian will not melt into ordinary glass!
Cold flint is not controllable!

John Step (Steph) @ Ann Arbor is trying to drop balls on flint to analyze chipping - but interval of contact is (Gene & Don's term) necessarily long & comes from an elasticity in the tool too) important analogy with inertia used in games of marbles to avoid "being shot away", analogy w. the travel of waves through recoiling rubber.

Using a mallet on a percussion flake attempt often causes the mallet to bounce back with no chip! Using sand underneath improves this immensely... as does a ^{bad} rubber pad?

(Is there a similarity between novaculite structure and fracture proof PS, PMMA etc. bearing rubber latex?)

8. → The experiment of putting two cones ∇ together after they've been exploded out of glass by shot. - the support - or resistance to force is astounding

Preparation of platform to support and direct the force
Following techniques of flint blades and cores (40m. blades) from country to country to see how techniques developed

Platform best at 90°C. Some African ones had slight indentations which were removed after removing one layer and then a whole new platform was hacked off and indented as before ~~for~~ "preserving"? blades.

Gene - straightening the core ridges to get proper support of the platform force

Human remains by Salmon Dam - crack in cliff - cartilage on bone still growing boy - no impact on heads. Indian? Never been on an cradle board - about 60yr-old remains - boy about 18 yrs. cloth (gingham) in his mouth! (Don called before this morning)

Copper for Gene's finest arrowheads. uses screw driver chuck or pin vises with diff size wires

Ge. 29.14.14.8

8 cont.

Sivillind? Archaeologists have exaggerated idea of how long it takes students to learn flint-knapping & give ridiculous assignments

Uses hip/leg to make up for his hand & arm weakness.
also - allows obtaining larger flakes when he's at normal strength.

Australians are pushers, Japanese are pullers
put their foot in a saw handle & push the wood up and down.

Promise pseud block PS for flaking

Novaculite samples for me to examine microscopically

Electron microscopy @ U.N.H.?

1/8" Cu rod tool for most everything - but can shape
eg. blade like for small chips. Hammer handle, split stick
or chuck can hold rod.

For blades - a stubby point which overhangs the
platform.

Diagonal chipping of Levis works much better
because of easier control in making chips from ^{opposite} ~~either~~
sides meet.

Too much Pace!

Q (This is a partial recording & the tape doesn't run!)

Le. 24.14.14.9

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