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About the Institute
The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To this end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library's activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography and the Library.

The Morton Arboretum
Lisle IL. 60532
21 March 1978

Dear George,

This is just a brief letter for the moment. You will be sorry to hear that on the evening of the day I received your letter (last night about 10 p.m.) Alfred died in the nursing home in Naperville to which he had been moved. It was a relief to Helen and indeed to us all because there was no hope for his recovery and for some weeks now he has been little aware of what has been going on round him. The question was how much longer Helen could continue. She has shown herself to be much stronger and tougher than any of us would have guessed. Now it is over and she can go back to Santa Fe, which she loves, and rest.

There is to be a memorial service in Clarksville, Missouri, where Alfred and Helen lived when they were first married. Then Helen will go on to Santa Fe, and Martin will come back here to pack up and move books and furniture. We shall miss Helen, & we shall miss Alfred and life will seem strange here without them.

I am sorry that you were not able to visit us but understand the reasons fully. Winters here seem to get worse and harder to endure.

Thank heavens, this one is almost over, and the last of the snow should be gone in a few days.

We were happy to hear that your sister's cataract operation was at least partly successful and that her rheumatism has been somewhat relieved by the new treatment. Please send her our love when you talk to her next.

As far as our own news goes, life goes on much as usual. Alexa spent a year at St Johns in Santa Fe, an interesting college, but decided that was not what she wanted. She has been doing courses at College of Dutage this year with a view to getting into Dentistry, or at least Dental Hygiene in the first place (much to our surprise) and in September goes to the Forsyth Dental Center in Boston, one of the oldest such schools in the country.

The Library continues to function in spite of Helen's retirement (a matter of regret to us both) and the recent defection of my very good reference librarian to the business world.

I sent on your letter to Helen and you will no doubt hear from her soon.

Good wishes from us all,

Ian

MUSEUM

Continued from E-1

The white-bearded Dyar, who wore a handlebar mustache, was as disliked professionally as his associate William Schaus was liked. He was sarcastic, extremely critical scientist inclined to rip colleagues apart in scientific print, but he enlivened the dull journals of his day with his unpredictability.

One of his continuing feuds was with an obese bug man who was very sensitive about his weight. Dyar named an insect "corpulentis" after the other. The fat man retaliated by naming a particularly loathsome-looking bug "dyaria" after Dyar.

Of one Pennsylvania butterfly man, Dyar wrote that his "little supplement is somewhat bristling with typographical errors and blunders, but we are used to that sort of thing from Philadelphia."

Which reminds us to say this of journals: In those days, and up until fairly recently, the written word of the scientist was absolutely sacred in a scientific journal.

One writer would interrupt the most detailed bug description by tossing in a love sonnet or a vicious diatribe on his wife — and it would be published exactly as he wrote it.

Another, an Australian dragon fly expert, made regular trips to Boston where a medium put him in a trance and transported him back to the paleozoic age. The Australian would then describe the giant prehistoric dragonflies in scientific publications, and only years after his death were the first fossils from the period found. His descriptions were said to have been remarkably accurate.

FOR EVERY TRUE eccentric like Dyar, there are dozens of quiet, meticulous and disciplined workers like Muesebeck who do not make good copy but who produce amazing quantities of good work.

The bachelor Schaus, when they finally dragged him away from the office, took piles of his work home with him and labored on into the night. Son of a prominent New York art dealer, he infuriated his parents by showing no interest in the family business and devoting his life to lepidoptera. One of the great American collectors, he put together more than 200,000 butterflies.

During his lifetime, he described more than 5,000 species, but most of his vast collection, which the Smithsonian has today, was never even counted, recalls Smithsonian entomologist Dr. J.F. Gates Clarke.

Clarke, who was once a pharmacist and is now a renowned moth and butterfly expert, is another one of those retired research associates who still comes to work regularly. He is also still running off on expeditions, as well. He just returned yesterday from a trip to the Western Pacific, where he spent six weeks — about. The museum thinks they sent collecting specimens in the Caroline Islands. He is 71.

The past adventures of Clarke in the field — including the putting-down of a mutiny that got him bashed over the head with a chair in a brawl with a drunken sailing skipper named Capt. Doom — send chills down the spine of Muesebeck, basically a "closet" entomologist.

DR. ROMAN KENK, 78, reads a dozen languages and works in the Division of Worms. He is *the* world authority on the fresh-water triclad flat worm, used effectively to evaluate pollution control. He has been studying this particular worm for 55 years and declares that there is still "a lot we don't know about them."

He should have been an ornithologist. He has the fierce, angry stare of an eagle about him, and dark, hypnotic eyes and long ears that lie close to his head. But his smile and gentle manner break all that down. He is one of those who can grin about his unusual life interest. His latest publication, "Index of the Genera and Species of the Freshwater Triclads (Turbellaria) of the World" can be fully understood by one man in Canada, one in Japan, and four in Europe — and that's all, folks.

Born in Yugoslavia, Kenk started collecting insects as a child. He taught at universities in Europe and Puerto Rico before deciding to "look for a job with a pension," he says. He wanted to do lab work with his worms, but settled for writing scientific bibliographies in the division of science at the Library of Congress from 1949 until his retirement in 1965. He reads a dozen languages.

After his retirement he became restless. He wanted to do lab work with his worms ("I've always been fascinated by them," he says) and asked if he could "help out" at the Smithsonian, working for nothing. He was named a research associate and brought the world's largest triclad flatworm library with him. It surrounds him on two sides and blocks him from view. Like Meusebeck, he comes in seven days a week.

* * * *

Among the other retired research associates who still come in to the office regularly and without pay are: Dr. Edward P. Henderson, mineralologist emeritus and known as "The Meteorite Man"; Dr. Waldo Wedel, archaeologist emeritus and a world authority on the Great Plains Indians, and Dr. Harald A. Rehder, zoologist emeritus and an expert on marine mollusks of the tropical Pacific.

Also, Dr. C. Lewis Gazin, paleobiologist emeritus and a leading expert on fossil primates; Dr. Wendell Phillips Woodring, a paleontologist and an authority on fossil mollusks of the Tertiary Period; and Oscar Ling Cartwright, a colcopterist who has collected 80,000 beetles for the Smithsonian.

There are probably other retired volunteers around, as well, but even the museum isn't absolutely certain of their exact number or whereabouts. The museum thinks they sort of come and go. The number of resident scientists is believed to be around 300, but don't hold them to that figure.

* * * *

Dr. Lyman B. Smith, 72, is the Department of Botany's active retired research associate. He does not bicycle to work anymore, but still comes in seven days a week. He is usually the first one in the office and the last one to leave. His field of expertise is the pineapple.

One of the most knowledgable plant taxonomists in the world, he is now proofing the second of three volumes on his 50-year magnum opus, "The Flora of Neo Tropica," a 2,000-page monograph on the entire pineapple family. The third volume is written, but not typed.

The next project for Dr. Smith is a book on "The Grasses of Brazil," and a treatment on "The Grasses for the Flora Ilustrada Catarinense (in Brazil)."

Agnes Chase: "Grass is what holds the earth together."

DR. AGNES CHASE was the legendary figure in Botany, and the dean of agrostologists (a grass culture expert) in America. She died in 1963 at the age of 94, pleading up until the end to be taken to the office, although she could hardly walk. "She was in a state of anguish when she could not get to work," said a colleague.

Largely self-taught in the field that she absolutely mastered, grass dominated her every waking hour. When meeting a stranger, her first question was always: "And what grasses do you work on?" If the person was not into grass, she turned on her heels and walked away, bored.

Retiring in 1939, she continued to work six days a week without pay. She turned down all interviews, saying: "I simply don't have time to talk to you. I'm too busy." She worked for decades without pay.

As an aging lady, she went on lone expeditions into the wildest interiors of Brazil, crawling on her hands and knees and pulling up grass specimens. Once the natives thought she was starving and forced to eat grass, so they offered her food. Another time she landed in jail — a suspected Ignatic. (Jail was not new to her — she was locked up twice in Washington for picketing in suffragette activities.)

She was a fantastic figure who carried an enormous work load while being custodian of the largest collection of grasses in the world. "Grass is what holds the earth together," she wrote. "Grass made it possible for the human race to abandon his cave life and follow herds. Civilization was based on grass, everywhere in the world."

At the age of 89 she finally received an honorary doctorate.

* * * *

Much can be written about such active retired research associates as the Geological Survey's Henry Ladd, 78, who continues to study fossil mollusks of the South Pacific; or Dr. G. Arthur Cooper, 74, a paleobiologist whose old love affair with stratigraphy and brachiopods spans decades. They have been written up before. But what about Brownie and Jessie?

"You aren't going to write about *her*, are you?" asks a shocked Dr. Cooper. "I *hope* you're going to write about him," says Ladd.

JESSIE BEECH, who worked in what was then Paleontology, was no distinguished scientist by any account, although she was a bit of a fossil. In fact, she was a "pain in the ass," as one man put it. She was a vituperative misogamist who snarled and threw rocks at people. She hated Catholics, Jews and married women. And she loathed men.

She had a violent temper, and would station herself by the museum exit to spy on who was leaving early. She was probably encouraged in her work because the telephone operators were instructed to listen in for personal calls being made. If they discovered one, a 3-cent charge was assessed.

Old Jessie would check to see if the cheater of the time clock had deducted annual leave time. She would then turn them in herself.

She even slept overnight at the museum on occasion, donning a nightie and curling up on a table. Once a guard surprised her one night while she was standing up nude and bathing in a large lab sink. Another hot summer night she almost gave a guard making rounds a heart attack by popping around the corner of a dark hall in her long, flowing white gown — looking, with her short white hair, just like a ghost.

DR. ROLAND W. BROWN was a thrifty paleobotanist at the U.S. Geological Survey. "He had no sense of humor whatever," says the Survey's impish Ladd, who is full of it. "He was a bachelor, you know. And I think he was a virgin, too."

"Brownie" once told Ladd of his encounter "with a beautiful intoxicated lady whom I found passed out on my hotel bed." Ladd asked him what he did. "Why, I called the manager and had her removed!" said Brownie, deadly serious. It was odd for him to even have a room. He preferred sleeping outdoors in a sleeping bag, to save money.

"If you ever got invited to Brownie's tiny apartment," remembers Ladd, "you were treated to two things and that was it: an apple and a bottle of beer. Whenever he went on a field trip, he simply gave up the apartment and found a new one when he got back. He brought his few threadbare clothes over to the museum and told one of the girls to brush them every now and then to keep the moths out."

He did his laundry in the department, and repaired his own shoes, as well. But he didn't hesitate to spend money on his massive, 882-page "Composition of Scientific Words," a "manual of methods and a lexicon of materials for the practice of logotechnics."

A publisher had offered to put out the book if he went along with a two-column format, but Brownie said no. He wanted a one-column format. The publisher said no deal, so Brownie paid the publishing cost out of his own pocket.

When he retired, he moved to a small cabin in the Poconos, but a seizure of thriftiness got to him and he had his phone disconnected. When he had his final heart attack, there was no phone to call assistance. So he died. He left an estate of $400,000, some of which was willed to the Smithsonian.

* * * *

And so it goes: The "increase and diffusion of knowledge among men."

It's a wonderful line, and it's been the reason and paid the way for all these years; for all these people who don't accept pay, for all these rather gentle people who do it out of a pure and honest love of scientific knowledge.

To get the beetle; to find the bird; to dig the fossil; to live the museum life . . . happily together, forever after, in the house that Smithson built.

Tomorrow: And So Good Night: The Bird Men.

The Washington Star
Portfolio
• Amusements
• Features
SECTION E •
WEDNESDAY, JANUARY 12, 1977

Notes on Gentle People, and Their Honest Love

By John Sherwood
Washington Star Staff Writer

A grand chap.

A lovely individual.

The most wonderful teacher I ever had.

You hear a lot of that, when you talk about people past and present at the Natural History Museum.

You also hear an occasional "son-of-a-bitch," and "egotist," and "peculiar." Most of that, however, is said with half a grin.

After all, even *they* recognize the fact that to the outside world they *are* a rather curious lot. Some museum men and women readily chuckle and relish tales about their colleagues and themselves. Others are completely pre-occupied with their chase of nature, and with the El Grande Smithsonian image, and they take themselves very seriously indeed.

There are people hung up on subjects so exotic that only a half-dozen in the world understand exactly what they are saying in publications. They engage in lonely and sporadic correspondence, because it takes them so long to get something definitive on paper.

These are brilliant, creative, highly-motivated and productive people totally involved in the search of knowledge for its own sake. That's what it's *really* all about. If it benefits mankind — well, that's nice, too.

Most of the things you read about these men include a long Who's Who list of their considerable credentials and contributions to science. There is usually nothing personal; about *them*. And that's a shame, because some are very colorful. Sometimes this doesn't come out until years after their deaths.

What follows are some random notes that you won't find in Who's Who.

* * * *

The Entomology Department is as good a place as any to start.

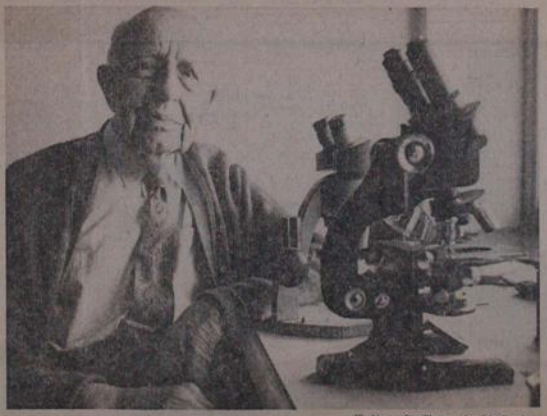
Many museum men, and bug men in particular, have a way of using bookcases and cabinets as room dividers, blocking themselves off in corners, around narrow aisles and out of sight. They behave almost like insects hiding away under rocks or in cracks. They want to be alone.

C.F.W. Muesebeck's research interest is parasitic wasps. He has been working with Agriculture and the Smithsonian for 45 years, and the past 60 years have been used in the study of these wasps.

The very proper and reserved 82-year-old has pale, forgiving eyes that are washed in kindness; large top-heavy ears, and a pelican pouch under his chin. He cannot be seen through his open office door because of the barricades, but he sits at his windowfront desk like a small, plump potato bug, squirreled away, bent over his microscope.

Retired 22 years ago, Muesebeck has a master's from Cornell ('16), which is where all great entomologists come from. A research associate, he comes to work for free every day — *at 6 a.m.! Seven days a week!* He is currently working on a synoptic catalogue of the hymenoptera of North America and Mexico — no mean choice. "I do it because it's what I love to do," he explains.

Men and microscopes: An early entomologist (circa 1900), and C.F.W. Muesebeck, at work this week.



—Washington Star Photographer John Bowden

At home, he edits the English version of the Russian Entomological Review, working on the translation with two editors in England. In the summer he tends his 100 hybrid tea rose bushes in the backyard of his University Park (Md.) home. A recent widower, he takes care of his ill, 84-year-old unmarried sister. His son died at the age of 16.

He is one of the rare museum types who was not interested in natural science as a boy. He was keen on mathematics, and in college he thought he might be a professor of English. But he came under the influence of Prof. John Henry Comstock, who "made the study of insects sound so fascinating that I switched to entomology. He was a perfectly grand man."

Still studying parasitic wasps so many years later, he sighs and says: "This field is so enormous. There is so much we don't know; so many, many species not identified. Insects become extinct and are replaced by new species before we can even get around to finding out what is, let alone what was."

ENTOMOLOGY HAS a way of attracting single-minded determination from its devotees. They know that no one scientist will ever live long enough to understand a minute fraction about the insect he studies. A third of the species of the arthropod world have not even been collected.

Maybe it was this frustration that drove at least one of the old Smithsonian entomologists underground. He started digging tunnels under his home. A world-famous moth and mosquito expert, his secret catacombs were discovered when a truck fell through the street. He explained his strange hobby by saying he liked the smell of fresh earth.

Dr. Harrison Gray Dyar, a cantankerous and wealthy man, had secret tunnels under a second house he maintained in Washington, as well. This is also where he maintained his second secret family, for Dyar was a secret bigamist, too.

The truth came out quite by accident when a Dyar child of one family met a Dyar of the other. Same last name? What does your father do? Smithsonian, you say? That's odd. Entomology? *Entomology?* Mosquitoes? *Mosquitoes?!* Somehow, the unsmiling Dyar survived it; probably by digging more tunnels. He died in 1929.

He inherited a fortune, worked for the Agriculture Department while attached to the Smithsonian, and for 31 years was not paid a cent. He traveled all about North and Central America and the West Indies collecting for the Smithsonian at his own expense, and he published a monumental mosquito taxonomy.

See MUSEUM, E-3

The challenge of "finding out what is" is what keeps men and women at the National Museum of Natural History interested for years and decades, in their particular projects. In this series of articles, Star Staff Writer John Sherwood has been researching the researchers. This is the fourth of five parts.

I first heard of Agnes Chase in January 1945. I had already spent something more than a year on Attu Island, and her first message to me ended with the sentence, 'I hope that if you are fortunate enough to spend another whole season on Attu Island you will make a complete collection of all the grasses which grow there.'

My assignments there had not been very heavy and I had roamed about on ~~many~~ off hours, picking specimens of the many brilliant

flowers which grow on that island from early May to late August. These I had pressed and dried with the intention of sending them to my mycologist sister. But she said, Oh no, send them to Dr Walker in the Smithsonian Institution. Following her suggestion I did so, and my whole life began to turn around. Walker's first remark to me was: 'I thought you'd speak me by not telling me where you are & the particular group & the hundred plants which you sent me

from Alta grows nowhere else in the world - a common character of many. Of course he had told Agnes about my off-hand calculation, who missed the almost complete lack of any grass (to me, then, just so much 'hay'). Her next-to-last sentence in her message had been: Hey, what's the matter with your islands; it's a rare plant anywhere which doesn't support some grass.

[I think I still have every written thing I ever received from Agnes

for the next 18 years, except the first, which I have so many times regretted. In my paragraph above I have had to use a poor memory to substitute Agnes' so much more incisive pen.]

To get me in time for the season Agnes shortly sent me a copy of her First Book of Grasses for me to read & study. With these were specimens of several likely grasses to be found on the Islands so I could have practical material from the beginning.

B

Not a one of us of quality.

(Told by Agnes years later)

Sometime before Hutchinson died, on the occasion of the visit of a director (#1) of Kew, he invited this functionary, Mrs Chase and a third (=?) (#2) to dinner. The four of them were packed into a four-seater cab. As they road along conversation wasn't too easy, but Agnes wasn't wasting time.

"Sir," she addressed (#1) "how is it that new staff member at Kew, Mr Hubland, who was made curator of classes in the [illegible]?"

Oh, he's doing rather well, I believe. We simply had to have help in the herbarium, and although his training was meagre he had shown considerable interest in the grasses so I thought we might find him some help. Actually he has turned out pretty good work, but, of course, he's not a member of the faculty.

Agnes held her breath, but, in telling the tale in later days,

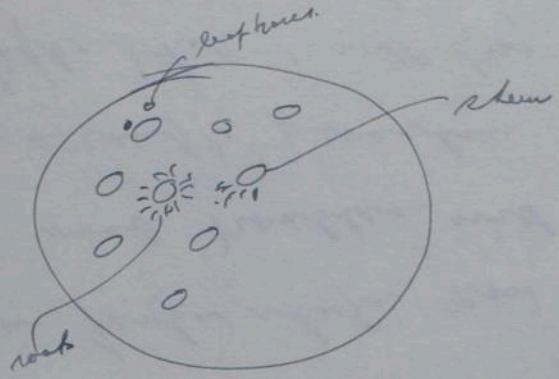
it was here she burst into pea-
long laughter. Hitchcock is a (#3)
(I think it was railroad engineer),
--(#2)'s father a farmer, and mine (#4).
Not a one of us of quality!"

I regret the lack of names & origins
here, but I think if you strike
hard enough at the US herbaria
some day the correct names will
be forthcoming.

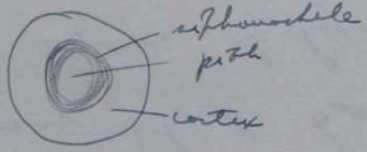
a courtesy appointment here, and might have easily been left out of those thirty-two asked to write such a letter, except that I have been opposing the war labrum for four years in ways that have kept the matter open. I have plenty of ~~ammunition~~ ammunition but getting it in proper shape now with my word troubles will try me for a couple of weeks.

After that I will try to write you several pieces on Agnes [illegible] at this point I need

The tendency shown before in Tempskya



Each stem very similar to Dennstaedtia



Apparently a solution to getting large size without cambium

Previous next lecture

Cambial activity in general

Lateral growth rests on existence of

I. vascular cambium

II. cork "

Vascular cambium

1. continuous cambial activity
most gymnosp. & dicots.

her name - it took me up to ~~the~~ ten seconds to read it ~~remember~~ it!]

Please convey my greetings to the several good friends I have at Hunt.

Oct. 17. Examples of stelar types.

Protostelic

Lycopodium
Botrychium
Rhynia small, 12-16" only
Asteroxylon fluted tracheids

in cross sec. of stem

Lepidodendron

Siphonostelic

Dermatostia

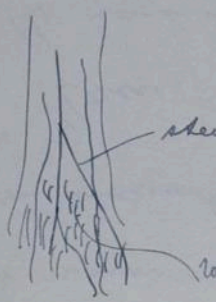
Dictyostelic

Osmunda
Blechnum

Polystelic

Matonia
Pteronia
Medullosa - seed ferns

In some modern ferns there is a bundle of several stems



Compound "stem"
or polystemonal trunks.

degree

getting Index full

copy to Kew.

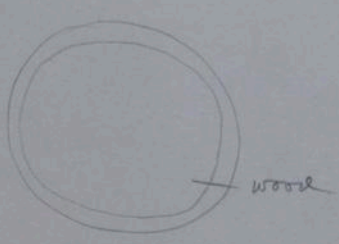
in degree —

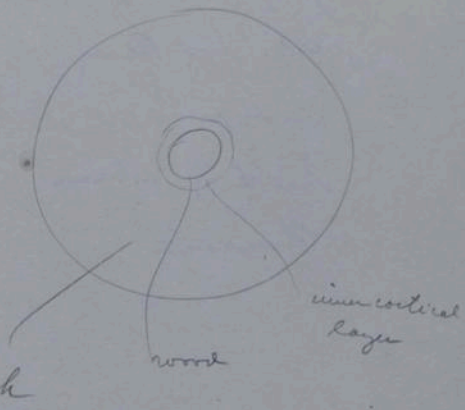
lack of steno.

Harrod

Beath, Sym 1

S1 In fossil Sphenopsids Lepidodendron diameter up to 2'
stele about 20% of diameter





keeps cork cambium a outside so that expansion is awarded.

Abscission. Due to type of cork cambial activity at base of petiole

separation layer
forms fairly soon after maturity of leaf
rel. thin walls of isodiametric parenchyma cells
3-5 cells deep. In fall there is partial gelatinization
of middle lamella + some cell walls
After fall of leaf cork cambium activity begins beneath
separation layer
Same type of tissue at base of some inflorescences

a

Kew director visit

xx meeting Agnes

The type catalogue — origin
— redone it
— Kin in China;

Reprint of First Book

Doctors award

The visit in Del.

Lack of steno.

Henrard

Chase   White River grass

✓ 1) 1st letter

✓ 2) Visit of Kew Director + remark on Hubbard

3) Last night before degree

✓ 4) Quest for money to get back reps. + Leonard ---

5) Immediate corrections made in ----

6) Getting the Index full.

7) Getting a copy to Kew + end.

8) Hesitation of having photo.

9) Indignant when I asked where did you get the money

10) The reassuring conclusion of all work before the Index

How Agnes found money to have the type cards retyped.

Hunt Institute for Botanical Documentation
Carnegie-Mellon University Pittsburgh Pennsylvania 15213

23 August 1977

Mr. George B. Van Schaack
1964 Harris Avenue
Eugene, Oregon 97405

Dear Mr. Van Schaack:

Recently I became archivist of the Hunt Institute. My background includes grass taxonomy which I studied under Thomas Soderstrom at the Smithsonian Institution, and while studying there I became obsessed, almost, with the desire to write the life of Mrs. Agnes Chase. Tom encouraged me, of course, but no chance occurred until I became affiliated with the Hunt Institute. Since July I have enjoyed reading through the boxes of Chase's correspondence. It is like a grand Agatha Christie search through clues of all kinds on what I call my "quest for Agnes Chase." You had a great deal of correspondence with her from your army days in the Aleutian Islands and afterwards at the Missouri Botanical Garden -- which place obviously did not treat you in any way commensurate with your abilities nor needs.

What I would like you to do for me, if you would, is to write a brief essay about your relationship with Mrs. Chase through the years. This would supplement what I've learned from reading the correspondence between her and you. If it would be easier to put the information on tape, feel free to purchase a 6-inch reel and speak away. We would reimburse you for the price of tape and postage to us. You obviously were a great comfort to her in her last years when you organized the donation of The Grass Index to her "nephew" Yi-li Keng. Any insights you can share with me about the changes that occurred at the Smithsonian when the Grass Herbarium was transferred out of USDA into the old red building on the mall would be appreciated. Also what do you know of the tension between the people at Gray Herbarium and those of the "government botanists," as Mrs. Chase called her group at USDA and US Herbarium? Evidently Merrill smoothed over some of the rough spots, but I still have not quite determined what exactly was going on then.

Now, if it would be easier for you to explain this to me in person, I might be able to fly to Oregon next October to tape an interview myself. I shall be in Salt Lake City for the Society of American Archivists' annual meeting and workshop for a tyro like myself. That ends on 11 October. I hope to visit the Reeders in Tombstone, Arizona, afterwards. This seems like the other side of the world compared to Eugene, Oregon. But with Hunt all things may be possible. I actually think that a preliminary recounting by yourself would at least serve as an initial introduction to Mrs. Chase from your point of view. If I needed a follow-up interview, then I could perhaps justify a visit. I hope you can help me to give Mrs. Chase the recognition and honor due her, which is what this biography is meant to do. Thank you so much for your assistance.

Sincerely yours,

Michael T. Stieber, CSV

MTS:kb

(Dr.) Michael T. Stieber, C.S.V.
Archivist

Ans 9/7

Over

Telephone (412) 621-4619

Ans. about Sept 6 tentative for SFO

Changed Sept 12 to tentative in late November to early Dec. Will inform after 'operation'

Hunt Institute for Botanical Documentation
Carnegie-Mellon University Pittsburgh Pennsylvania 15213

16 May 1978

Dr. George B. Van Schaack
1964 Harris Avenue
Eugene, Oregon 97405

Dear Dr. Van Schaack:

It is unfortunate that gods and demigods conspire against our meeting. However, the chance to get both Dr. Ewan and yourself in conversation about the noble lady of grasses (and at that on tape) is one that is difficult for me to avoid taking advantage of.

I have enclosed a copy of the preface which I have written for the book and ask for your constructive criticism and for that of Dr. Ewan. I have finally finished the first chapter of the book as well as the chapter about Agnes' two trips to Brazil in the 1920s. She wrote such detailed notes about those trips that the chapter became almost autobiography with only a few of my additions. This seems to be the most satisfactory way to approach a biography of a person who was so facile in writing about her observations of people, of plants and of nature.

Perhaps in your conversations, for which you will find enclosed two tapes, you might endeavor to convey as much about the personality of the woman as you can. This might entail a brief discussion of how both of you first met her, what your first impressions were, and your impressions of her work over the years that you knew her.

I notice in some of your letters that there is mentioned a Dr. Blake and a Dr. Griggs at George Washington University. Could you comment a bit about those two people? They were mentioned in letters that Agnes wrote to other people. Hence, I surmise that they were friends of Mrs. Chase. At one visit with Mrs. Chase in Washington, D.C., you met a Dr. Ruth Chou. Can you tell me anything about her, her work, whether she is still living, and if so, whether it is possible to get in touch with her? In another letter that you wrote to Mrs. Chase, you indicated that you worked or were associated with Edgar Anderson while you were at the Missouri Botanical Garden. Would you please comment somewhat on his relationship with Agnes Chase? There are some letters between them, but most of it concerned exchanges of specimens and like information. Are there other letters that you know of?

Could you comment also on Agnes' political views as you or Dr. Ewan may have discussed them with her? I know of her work in the suffragette movement and I know that she was an active supporter of many social causes.

Telephone (412) 578-2434
Telephone (412) [redacted]

If I have other questions while going through the letters in your file and in that of Dr. Ewan, I will certainly send them on to you. In the meantime, I would be most happy if you would attend to the task of dealing with the cassette recorder in appropriate fashion so that the conversations will be able to be placed in the oral history file. Enclosed is a donor sheet for each of you. You may sign or amend it as you will. I am gratified to be able to have this opportunity to have both you and Dr. Ewan together to share some of your reminiscences of Mrs. Agnes Chase.

Wishing you good health and a pleasant spring and summer.

Sincerely yours,

Michael

MTS:dc

Dr. Michael T. Stieber
Archivist

P.S.: Please note the lead of clear plastic on each tape. This clear part must be winding around the spool before you begin taping. So beware.

Enclosures: Xerox copy of preface to Chase biography;
Two cassette tapes;
Two donor sheets.

Mrs. Agnes Chase, retired, senior botanist, U. S. Dept of Agriculture.

At 80, Mrs. Agnes Chase is without question the most able and distinguished student of ~~grasses~~ tropical hemisphere grasses. Retired ten years ago as senior botanist, U. S. Dept of Agriculture, she has remained at her desk, until recently still actively in charge of the grass herbarium of the U. S. National Museum. She is currently completing the manuscript of a monograph on a large group of South American grasses, the most recent of a series of monographs on various groups of American ~~plants~~ grasses published during the past forty years individually or in collaboration with the late Dr. A. S. Hitchcock Agrostologist Dpt. of the U. S.

Mrs. Chase's achievement is perhaps the more remarkable in that she came began some fifty years ago in the field museum, ~~then at the time she was without formal training in botany~~ as a botanical illustrator and no formal training in botany. During this long century she has been largely self-taught, having been continuously employed from 1903 in the U. S. Dept of Agriculture, until 1931 as assistant to Dr. Hitchcock, rising in the ranks of the department from illustrator to senior botanist in 1925. In connection with her duties and her study

~~She has spent~~ the last three years have been spent revising the 80,000 card catalog of grass names ~~which she has been making since~~ one of her many projects during the fifty years with the grasses. Each name has been checked in the literature, together with ~~collector~~ author, type, basis etc. This catalog alone would establish ~~the~~ her reputation. §

Mrs. Agnes Chase, retired, senior botanist, U. S. Department of Agriculture.

Mrs. Agnes Chase is the most distinguished authority on western hemisphere grasses and, at eighty years of age, is still in the front rank of the most able students of this flora. Officially retired ten years ago, she has remained active, taking the lead in preparing a new and revised Manual of the Grasses of the U. S. (now in the press). She is currently completing the manuscript of a monograph on a large group of South American grasses, the most recent of a series of monographs on various groups of American grasses published during the last forty years individually or in collaboration with the late Dr. A. S. Hitchcock, Systematic Agrostologist of the United States.

Mrs. Chase's achievement is perhaps the more remarkable in that her career began some fifty years ago in the Field Museum as a botanical illustrator with no formal training in botany. During the half century since then she has been largely self-taught, having been continuously employed since 1903 in the U. S. Department of Agriculture, until 1938 as assistant to Dr. Hitchcock, rising in the ranks of the department from illustrator to senior botanist in 1925. Although never holding a formal academic appointment, she has been a guiding influence in the training of every student of American grasses, to all of whom she has given generously of her time on the occasions of their visits to Washington. Her book on the principles of grass taxonomy is a masterpiece, so simple that it has been referred to as "the scorn of graduate students, and the delight of scholars."

In connection with her duties and her study she has travelled extensively throughout the United States, the West Indies and Brazil studying and collecting grasses and throughout Europe visiting numerous herbaria for the study of type specimens. It is largely through the

efforts of Mrs. Chase and the late Dr. Hitchcock that the United States has built up the largest and most complete grass herbarium in the world.

Mrs. Chase is internationally known as an authority and is widely recognised as the person who has contributed most to the world's knowledge of the grass flora of the western hemisphere.

Discarded- Rockefeller flyer for Conrad Gesner's Historia plantarum vol 1 - 2 - 3 / publ. 1972, 73, 74.

[The Book]

Microfilm vs Codex

Codex is an ancient word for what is today called a book — rectangular, thin pieces of wood, leather, vellum, parchment, or paper, containing writing, fastened together along a common edge, in any one of numerous ways. Scroll is a much less ancient word for what the Romans called volumen — a rectangular piece of leather or papyrus, also containing writing, much longer than wide, rolled more or less tightly as are paper towels. Both of these ways of preserving written material existed more or less side by side two thousand years ago, but only the codex found favor as time went on, except for the ritual use of Hebrew writings. Today, the scroll has returned, for some purposes, to favor.

engulf our modern codices. His name is next, microfilm, the ~~double~~ ubiquitous roll of photographic film, which was critical for the development of the motion picture, as well as for the handling and processing of photographic materials.

It is easy to see how microfilm was seized upon as the medium by which to preserve the printed word, when, about fifty years ago, in many codices the paper used in them (books), began to disintegrate, on the one hand, and, on the other, the enormous number of codices (books and newspapers) began to make it impossible to preserve all printed material in its original form. For the rest of this discourse, the word "film" will be used to refer to

film on which printed material has been transferred by photography.)

The very nature of microfilm speaks for itself to emphasize its merits. To make a microfilm of a book is a short process — turning a few hundred pages and pressing a switch to expose each pair of facing pages is a matter of moments only. After the film roll is developed it is wound on a relatively small spool occupying only about ~~only~~ ten cubic inches, while the corresponding book may well occupy some thirty or more. Up to 67% of the normal storage space can be saved. Why all the fuss between custodians (librarians often on their

Up to here even the most obtuse must welcome this microform — namely microfilm — which first succeeded in preserving the printed material of decaying books, and the vast repositories ~~megatons~~ of newspaper.

printed on

One not so obvious merit, except to those who know the technology, is the fact that to reproduce, whole books in original size from any form of photographic preservation other than the roll would be most awkward.

As it has been, the Xerox Co developed a copying machine in which the reprinting is made on an unrolling strip of paper, geared to the very speed of the microfilm as it unrolls ~~from which~~ the printing is to be copied. No complaint could be made...

their way down from way up(?) (functioning on a rock by the look of the budget) and patience, who shouldn't be dismayed by this handy method of storing three times as many ~~(one-time)~~ books in the usual space, and all this at reputedly 'great saving'? Elementary, my dear Watson— the very nature of microfilm, as other uses, speaks again, and this time ~~also~~, to emphasize its demerits.

What are other uses of microfilm? Essentially they all come under the head of 'substitutes for books', including of course the somewhat modern big brother, periodicals & other serial publications. Now, if any such substitute serves the reader equally or better than the

Original, again there can be no complaint. But if in any way the service is less, the use of such substitute is to be borne with out complaint only if there is a clear recompence in a ~~[illegible]~~ foggy Balance which is claimed to exist. To cite the fossil stream witness a library of nothing but microfilms, but yet containing on microfilm every word that has ever been printed. You don't like it? Why not? Here you have the complete written of all ~~what has written~~ whose works have been printed with survival Copy enough to be carried on 35 mm strips. What do you want?

You want, of course, the amenities which books supply, not just a ~~in addition~~ roll of cold film threaded into a ~~[illegible]~~ machine (the printing magnified & exhibited on an inconvenient screen ~~[illegible], supplies~~) — few amenities here. ~~no amenities~~.

What's an amenity? The word comes down to us from the Latin ~~amenitas~~, amoenitas, meaning pleasantness (including I should suppose, the absence of unpleasantness). So an amenity is that which gives pleasantness. I may stretch the meaning in the list which follows, but I doubt unduly so.

8

Make 2 columns Serendipity Dis-serendipity

1) book on shelf, with marked spine

2) portable to a convenient place {desk office home etc} even circulating

3) instant access to any page no waiting for reel to turn

4) pages can be flipped to make

~~5)~~ general layout & the makeup would are noticed which suggest where reading might be profitable — or unprof.

6) no waiting to consult index and ~~[illegible]~~ instantly thereafter secure to desired page

7) Always a clear, sharp image, black or white, plus color (often)

8 No straining to see with in the general overhead lighting (as between film in a box, and between a book under high light.

9 No problem of pointing wrong page and in the right book

10 More than one book at a time no problem

11 No plug in — no levers to manipulate or buttons to push

12 No necessity to make a copy (at 5¢ +) for future reading — the book is always ready.

13 — —

14 — — —

MAXIMUM

AND SERENDIPITY

at all times.

Not a single one of these amenities is provided by a so-called microfilm reader. I claim this is a very substantial depreciation ~~in the use of the~~ over what the book provides, all of it the result of the non-human device which interfaces itself between the original text and the screen image. I can only use one word to refer to this depreciation, namely dehumanization ~~of the use of the text~~. Reference to the column headed dis-amenities at every entry shows how the machine imposes its will on the patron, and how noisome this can be.

Of course not every dis-amenity must be suffered in each use of microfilm. If all that is wanted is the punctuation on the title page of an obscure book and a microfilm of it is handy, with that book the first to appear on the film there will be little dis-amenity in comparison with obtaining the book itself from a distance to take an extreme case. But if you are trying to find where in a work of 500 pages the author ~~and~~ inserted a specific remark, which the authority failed to make more precise than Dr Jones' Equality we find him saying — — — 'no doubt, except the individual no chapter, no page, no clue,' you would roll the microfilm skipping ~~at once~~ some of [illegible] pennies dis-amenities. With the book in hand

flopping the pages, + scanning
is pretty sure to give you much
less trouble, and very possibly
lead you to other interesting weaknesses
that author has overlooked.

3183

40 students

Binding Session for August 6/75 11:30a.

Only 50 minutes permit small coverage of a large subject. I outlined what I shall say to books of the last hundred years, while at the same time broadening my remarks to include the more general idea of preservation of books, of which binding is only one part.

Very few people, including librarians, have any clear idea of how a book is made, and accordingly cannot understand the important principles of preservation. So first I must make clear how books have been made in the last century, and then outline the options and/or mandates which the librarian has in carrying out preservation.

A hundred years ago books were still being made almost entirely by hand except for being punched on rolls of machine paper instead of individual sheets of hand made paper. Today the machine does almost everything in book manufacture.

"EB 15 Micro-2: 153: Large books such as encyclopedia volumes & other reference books are usually still sewn." Oct 7.

Practically all books have printed several pages at a time: two pages for folios, four pages for quartos, eight pages for octavos, etc.

[Architect]

Since both sides of the paper is used for printing the basic unit of the book is made of a folded sheet containing four pages for a folio, eight pages for a quarto, etc, the result of such folding being called a signature, a gathering, a section or what you will. This is still true for the unbound loose paper book from which all the folds have been cut off, because it is the most efficient way to get pages of printed paper into correct sequence.

A hundred years ago the folded sections gathered in proper order to form a book were sewn together by hand on cords or tapes as shown in the exhibits. One important thing to notice here is that the cords or tapes extend beyond the sheaves of sections; these loose ends are eventually securely fastened down upon or into the covers of the book. The act here undertaken is properly known as binding the book — the covers are bound to the book by strong cords or tapes. It is this which accounts for so many older books still retaining their covers, while it is the absence of these cords or tapes from practically all books made since 1900 which helps account for so many 20th century books losing their covers.

The sewing together of the folded sections of a book became so expensive that it was worth the expenditure of much time and money to develope a sewing machine. Several inventors worked at this from 1850 onward. The most ingenious and successful in 1866 one was David Smyth, who finally produced the basic model leading eventually to machine sewing of all books right up to this moment. The only hand operation required has been placing the successive sections on a bar of the machine, from which the machine itself takes them automatically. Even this hand operation is no longer necessary.

The sewing which this machine produces forms successive

sections to each other by several separate threads — three for a small book, ½ inch tall up to four or even six for taller books. Each thread enters the first section at its own level and stays at that level, weaving back & forth, first inside the fold for about one inch, then out to go into the next section for another inch loop, etc. Look into nearly any modern hard-cover book to find these threads visible in the folds at the back of the book.

[Exhibits with slips]

But there are no tapes or cords any more to which the covers are going to be bound, and the sewing threads are too delicate to take on this task. How are the covers attached

to the cover book. By adhesive, is the answer. The cloth strip is made of mull, a very loosely woven cloth resembling marquisette netting, and is cut about half an inch shorter than the height of the book and an inch and a half wider than the back of the book to which the mull strip is attached by adhesive. The wings of the mull strip about three quarters of an inch wide will eventually be fastened to the covers of the book by adhesive, thus hinging the covers to the book, but not binding them to it in the old sense. The only additional bond between the book and its cover is furnished by the double page end-paper, half of which is pasted down on the inside

of the cover, and at the inner edge pasted against the outer leaf of the first (or last) section of the new book.

Now you have it — the answer to the excessive cost of hand binding, leading to mass production of books, but at the same time providing them with hinged covers, far less adequately attached to the book, and the first place at which the book begins to go to pieces. In fact we have here, I believe unintentionally at its beginning a hundred years ago, the first example of genuine built-in obsolescence; this has become an enormous source of trouble to libraries and of revenue to library binders. It is to the ravages

of the margin to nothing until strip, and of the inefficiently machine-applied adhesive that so much of library funds and of librarians' time have had to be devoted to keep library books on the shelves. A great deal could have been saved by better will - all that was needed was a small of the quality of light canvas duck, not only glued to the back of the books but sewn to the book along the folds of the first + last sections, together with more careful application of adhesive. Vain regrets.

The sequel of all this was the visit of the library binder as we have known him for more than half a century. Inundated by the flood of ravaged books he had to find some quick method of

putting such books back together.
The newest way the sewing machine
which required trimming the back of
the book so that all the leaves
were separate, then sewn
together by feeding the machine
skeins of about ten to twenty leaves,
which stabbed the cut-down inner
margin with holes & threaded
needles in such manner as to
hold all the leaves of the book
tightly together at the back. If the
margins were wide enough and the
paper strong enough but still
flexible the book could be opened
easily, even to lie flat. But
if not — the usual case — the
book must be held open by two
hands or suitable weights, with
all the inconvenience of use that

overgone has had to become used to in most libraries.

So far I have described only one curatorial problem. There are several others, which I can now more quickly describe since you now know something about how books are made. These problems are concerned with, at least the following matters:

a) binding (as it is incorrectly called) periodical issues into books

b) providing hard covers for so-called paper backs

c) providing some kind of covers for pamphlets

d) repairing books which have been bound (without quotation marks) or bound with quotation marks.

To a very large degree it has been treated by exercising described above as used to 'rebind' previously bound books.

This method has resulted in many places for creating a library of periodicals & journals which are certainly protected from the outside, but very different on the inside.

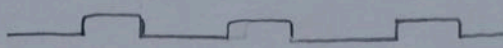
Problem b) has often met the same treatment, until recent years. Problem c) has been treated largely by stapling pamphlets into hardboard covers, or by oversewing.

Oversewing has yielded some ground to the fan adhesive machine. The material to be treated is reduced to a sheaf of loose leaves. Instead of sewing these as in oversewing, the sheaf is fastened in a vice with ½" to ¾" exposed at the back. These flexible stubs are first brushed to the right and their edges painted with adhesive, and then to the back

adhesive dries (in some machines almost instantly) the remaining object is next to be pasted band — thereby transforming the word paper with a new denotation. When the book's paper is entirely flexible and if surface accepts the adhesive, the result is fairly satisfactory and definitely impressive. But the degree of satisfaction depends as well on how much inner margin is left after the guillotine.

Just within two years overcoming has finally met its nemesis in the the new machine called the Smyth however Cleat Binder. This, also requires cutting the folds of the back of the book,

set up to shend. In doing so the back edges are cut uniformly with a somewhat sinuous profile so that each leaf has studs on either of an inch long alternating with empty spaces:



The sheet resulting from the moting is caught in a vice-like grip just exposing the studs. Then the sewing is done; each ridge of studs has its own needles, thread & adhesive, these all unsplicing by the machine to make the ridge of studs a more or less solid mass still somewhat flexible. The resulting object will open flat at any place and stay open without holding or weighting. The life of the

sewing depends largely on the quality of the paper, that is, how many times it can be flexed. For modern paper this is a large number; for book or periodicals from the period 1880 to 1945 this number is much smaller. But so little has been trimmed off (and backs of that period had wide margins to begin with) that a new trimming can often be made & the sewing restored.

The Smyth sheet sewer is almost completely automatic after the material to be sewn is placed in it, and the whole operation is very rapidly completed.

May 23/75

Binding
~~Intact~~
scroll
codex
spine

the dichotomy: spine ⟷ case

simple leaves ⟶ folded ⟶ multifolded

multifolded ⟷ thongs, cords, tapes
here the 'book' was 'bound' to the cover

hard back, flexible back / loose back

The degeneration of binding in the 19th century.
- built-in obsolescence: first to cut costs, & then presumably deliberate to increase gain.

Gutta-percha adhesive

Smyth sewing
including taper

The mull (muzzuito netting)

The advent of periodical binding vs library binding

The oversewing machine and its mark as it attacked both library binding & pamphlet binding.

The severance of the inner margin

The retention of single leaf 'binding' in both original state + rebinding

The paper-back or so-called textbook binding

The double-fan

The Smyth sheet-sewing machine.

Reflection: shabbiness in removal work
: the side sewing
: overcast gathering + tapes, etc.

Library Grade A — Use of Smyth sewing in casing

Repair binding

1. Importance of early repair in all cases
2. " of restoration repair for books in multiple volumes.

Final: The old repair: Its effect on the binding

Environmental Standards For Storage of Books And Manuscripts

by PAUL N. BANKS

THIS ARTICLE is a slight adaptation of a statement of guidelines on environmental standards as projected for the new Newberry Library bookstack building. It attempts to deal, in summary form, with all of those factors which might be included in building planning which can influence the preservation, deterioration, or destruction of books. Specifically not dealt with, however, are human comfort or efficiency, as these are within neither the author's bailiwick nor competence. Fire and water as potentially damaging factors are touched upon, but security from theft is not.

One very important general principle is the separation of books and people insofar as this can be achieved without violating the basic *raison d'être* of a library. The conditions which make a favorable environment for people are not the same as those which are conducive to the preservation of library materials, the oft-repeated myth to this effect notwithstanding.

In outlining such standards as these, there are difficulties in balancing differing scientific opinions, reasonable cost and desirable goals, or conflicting goals. Some of these factors will probably have to be resolved by negotiation among trustees (as controllers of cost), architects and engineers, and conservation-oriented staff members.

Temperature

It has been widely stated in the literature that temperatures in the range of 68° to 74°F.[1] are optimum for the preservation of library materials. It is a fact of chemistry that the speed of most chemical reactions approximately doubles with an increase in temperature of 10°C.[2] Since the deterioration of library materials is a series of (often complex) chemical reactions, it follows that theoretically, at least, the higher the temperature, the faster the deterioration of the materials. There is a good deal of experimental evidence to bear out this theory. Indeed, the most satisfactory method found to date of estimating the longevity of paper is to "accelerate its aging" by heating it under specified conditions, and measuring its physical and chemical qualities before and after such "accelerated aging."[3] In addition, the W. J. Barrow Research Laboratory is engaged in a long-term experiment on the effect of cold-storage (around freezing or zero; I'm not at the moment sure which) on paper. Although there are not enough results for publication as yet, the evidence thus far obtained (as reported orally by Dr. Robert N. DuPuis, director, at the time this was discussed) fully bears out the idea that the colder, the better.

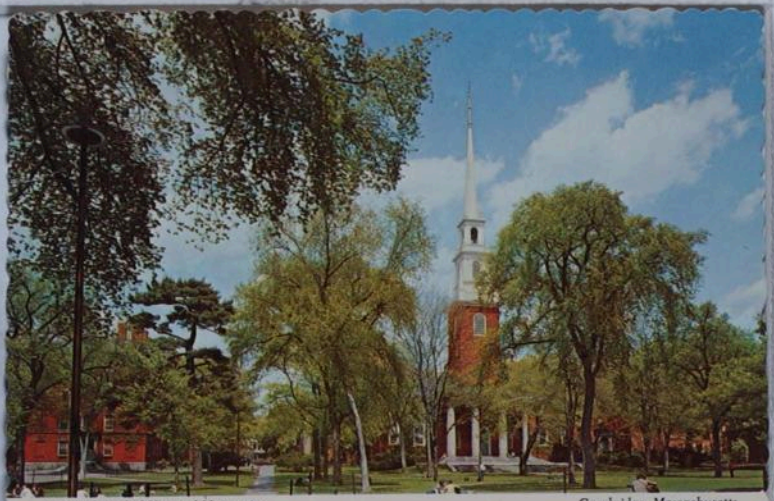
The reason that a temperature on the order of 72°F. has been almost universally cited is, of course, because that is the temperature at which people are generally the most comfortable, and it is usually difficult or impossible to separate books from people, even in storage facilities for the former.

If we assume that the lowest temperature possible is the best for the preservation of books, there are at least three factors which dictate lower limits. The obvious one, of course, is people. While it is desirable from the standpoint of preservation that book storage should be as much isolated from people functions as possible, obviously the two cannot be wholly separated if the books are to be serviced for readers. Where book storage can be separated from book use, one might set the lower limit of temperature as that which pages (wearing jackets or sweaters) would tolerate for paging books. Reshelving, moving, shelf-reading, and the like would, of course, also have to be considered. People do work in refrigerator and freezer lockers, but this is probably extreme.

Another factor which must be considered in setting lower limits of temperature is the problem of condensation. If books were stored below a certain temperature, moisture would condense on them, causing damage, when they were brought out into a "people-area" for use. If we can be reasonably certain of a maximum temperature of 76°F. and a maximum relative humidity of 50% in any reading room, the books could be stored at a temperature of as low as 57°F. without risk of condensation problems for books being used. The cost of maintaining a much lower than usual temperature during the summer will be a significant consideration.

It is thought that cycling, i.e, variations in temperature and humidity, is damaging to paper.[4] This probably has to do with invisible, internal physical stresses set up by the responsiveness of paper to these changes. It is safe to assume that such damaging effects are magnified many-fold with regard to a whole book, which is a structure composed of materials with differing responses to temperature and humidity. For this reason it might be contended that books should be stored at the same temperature at which they are read. I be-

Paul N. Banks is conservator at the Newberry Library, Chicago



Harvard Yard of Harvard University — *Cambridge, Massachusetts*

HARVARD YARD AND MEMORIAL CHAPEL
Cambridge, Massachusetts

There's a delightful, old-style campus hidden behind tall brick walls just off bustling Harvard Square. Here students attending the country's oldest institution of higher learning study or relax.

No telling where you will be hearing from me, George, and today walked thru Harvard yard and ogled new "pit" for Houghton Lib. rare books — a smart move — Fogg Museum has good Lafayette exhibition and enjoyed that but of course the Mass Ave bookshops (Pangloss etc) were closed on Sunday. Here for AAS meet in Boston

Joe

Photo by Fred Sellison Jr.

© Published by ALAN KLEIN, 134 Summer St., Hyde Park, Ma. 02136

[from Joe Ewan]

post card

Dr. George B Van Schaack
1964 Harris Street
Eugene, Oregon
97405

ACTUARY'S DEPARTMENT—MATHEMATICAL BUREAU—TECHNICAL AND SURRENDER VALUE SECTIONS

This picture includes the Technical and Surrender Value Sections of the Mathematical Bureau where the figures contained in the Rate Books and Dividend Leaflets are prepared, and special calculations made for Cash Value, Policy Loan and various other routine transactions. A large number of calculating machines are employed to produce the greatest degree of accuracy and speed.

ACTUARY'S DEPARTMENT—Annual Dividend Bureau—
Dividend Calculating Section

In this branch of the Annual Dividend Bureau dividends are apportioned to the individual policyholder's card record. This year nearly $40,000,000 will be distributed to approximately 1,500,000 policyholders holding participating policies. In adjoining divisions, dividend notices are prepared, post mortem and exchange dividends are computed and interest and excess interest are determined for dividend deposits and policy proceeds.

Dividend Recording Sections

These Sections handle the reviewing and recording of the thousands of dividend transactions that occur daily in the various offices of The Equitable throughout the country. The record of the disposition of dividends maintained here for each policyholder in some instances dates back over seventy years.

COPY, COPY, COPY, FOR COPY'S SAKE

From the New York Evening Post, June 25, 1812.

Cambridge, June 20. The Harvard Crimson reports that in a mock battle at the Commons last Friday in celebration of the Battle of Bunker Hill (Col. William Prescott, Commander of Revolutionary Forces) Prescott's grandson, W. H. Prescott, sustained a serious injury to his left eye when an upper classman scored a 'Prescott's eye' with a piece of bread. Prescott will lose the sight of the stricken "ocular", and that of his right will deteriorate during his lifetime until, before his death in 1859, he will be able to use it only one hour a day a few minutes at a time. Prescott will study in his father's law office, but he will eventually devote his almost sightless life to the history of Spain in the 15th and early 16th centuries. He will fortunately have the means to employ scholarly clerks to assist him. Still, he will have to memorize almost word-for-word up to 50 or 60 pages at a time of materials read to him, in order that he may select from them the matter he will need to use in writing his fascinating accounts : Ferdinand and Isabella, the Conquest of Mexico, the Conquest of Peru, and numerous book reviews, many, themselves, small books on their subjects.

How fortunate for society the sure aim of that Harvard upper classman and the date of Prescott's nativity, a century and a half before the age of electroprint [sic] copying machines, which, it seems, will require no memory nor even very much knowledge of the content!

Semantic encounter in an arboretum.

It was evening of the first really warm Sunday last spring, and the arboretum had been thronged by people; they had come in pairs, in family groups, or just alone, and their garb had been as varied as these times admit. I was standing fascinated by the overwhelming bloom of a large tree, perhaps a crabapple, perhaps an ornamental pear, when I saw a young couple coming toward me; they were both in tight-fitting shorts, he chubby and tanned, she more lithe and winsome. Should I ignore them, or give them a welcoming smile? I had just left my office after several hours of lonesome work, so I chose the latter alternative. She caught my glance as if I had thrown her a ball, and called out, 'Do you know what kind of a tree that is?' 'Well', I said, 'I thought it was a crabapple, but its leaves and bark make me think it may be a pear tree--you know, apples and pears are closely related members of the same family, the roses'. We couldn't find a label on it, so they settled for my determination of it as a pear. We stood beneath it and looked up through the branches, arched all about us, to the deepening blue of the evening sky. It didn't make any difference whether it was a pear or an apple--the experience of being there was the same--a deep realization of the wonder of such marvelously beautiful bloom. However, a little later, after they had gone, and I had found a label marked Malus baccata, I hastened to send them a note to the effect that although Linnaeus had called it Pyrus baccata it has, since his time, often been thought of as an apple. A minor semantic difference, largely dependent on whether the styles in the flower are connate or free, and other similar criteria, however much fuss some kinds of people--horticulturists, nurserymen, taxonomists, and their ilk--may care to make over it.

I say, I sent them a note. But how did I know their name or their address? Well, as we stood there, I said, not without curiosity, 'But why are you two youngsters so interested in this tree, and in the arboretum in general?' 'Oh', he replied, 'it's right along my line--I'm studying urban design at PQ University, and Jerry here is my wife. We're Joe and Jerry Smith', and he stretched out his hand to seize mine in a warm grip. 'I was a student in industrial design for a while, but I just couldn't take the awful stuff being produced in that field these days. So I switched over to urban design, where there's at least a chance of saving some beauty in the landscape'. 'Then you must know my friend, Mrs. Beagle', I said, 'I think she's in urban

design at your university'. 'No', he answered, 'I don't think so. Maybe she's in city planning--that's another department, you know, and we never get together'.

I let it drop at that point, for I was tired and preferred not to enter the lists so late in the day. But a few days later, as luck would have it, Mrs. Beagle turned up at the arboretum, and with her Mr. Kling, a professor in the same department. Both of them, however, disclaimed any knowledge of Joe and Jerry. So I asked, 'What is your department', to which they replied, 'City planning, and it's quite true we practically never get to know anybody in urban design, and vice versa'.

Now, reader, the Latin word urbs has the standard definition of 'a place where people live, surrounded by a wall'; it is equivalent to the Greek polis, which all experience requires us to translate as 'city'. More than that, during classical times urbs was seldom used except for the city, Rome, the one city of those times more to be plagued by our current problems than any others, the one which kept growing beyond its walls with all manner of trouble. There is little doubt we properly use the term 'urban design', where urban refers to cities, in the present day meaning of the burgeoning centers of population which have desperate need of the application of design. Further, if you consult the great Oxford English Dictionary, you find that the meaning of the noun 'design' is elaborately expounded, first under the heading: 'a mental plan', and then under the heading: 'a plan in art'; there isn't any third heading. Somehow or other the word design seems to be inextricably connected with the idea of planning. In short, urban design means city planning. Here there is essentially a semantic non-difference, so preciously ignored that members of the department of city planning never meet members of the department of urban design--at least at PQ University.

The question is simple: is this treatment of the non-difference between the basic meanings of two terms, both of great importance today, as critical for our society as the real, but small, difference in the meanings of Pyrus and Malus? I think you can answer this question for yourself.

Professor Kling kindly made a remark or two to help me to try to think more clearly about this matter, for I had expressed great concern to him that a university should have two departments with semantically identical names, but with no intercourse. Perhaps his most significant contribution was,

'Well, you see, city planning is concerned with such things as transportation systems, density of housing and office buildings, schools and playgrounds, measures to control pollution, etc., while urban design, on the other hand, is architecture on a grand scale--great avenues with broad prospects, controlled masses of buildings, trees, shrubs, monuments and art museums, set in wide fields of green, in general, appeals to the eye'. Such a division of concern, if it carries with it isolation of the two groups entrusted with these diverse objectives of planning, must result in what is so frequently found in this country: fine avenues along which there are no schools, although only a block or two away there are slums (some of them dating from the mid-twentieth century) teeming with children whose schools are antiquated and woefully inadequate; lakes of pleasant contour with enchanting prospects, filled with water in which no fish swim nor other life exists; streets of luxurious apartment buildings facing parks in which one dare not walk alone after dark.

Basic Books for a Botanico-horticultural Library

The following list is based on twenty years of experience in eight libraries. Essentially it lists the books that I discovered I needed when the library facilities available to me were limited. Those titles preceded with an asterisk are absolutely essential. They cannot be substituted for. The other titles in the list are each in its own way extremely useful - but not absolutely essential.

Gordon DeWolf

Dictionaries

* Jackson, B. D. - A Glossary of Botanic Terms (ed. 4)
London: Duckworth & Co.: 1928 (repr. 1949)
The basic work in English

* Schneider, C. K. - Illustriertes Handworterbuch der Botanik
Leipzig: Wilhelm Engelmann: 1905
Probably the best one volume dictionary; illustrated.

* Flood, W. E. - Scientific Words, Their Structure and Meaning
London: Oldbourne: 1960
Not the most complete, but certainly the best value for money.

* Willis, J. C. - A Dictionary of the Flowering Plants and Ferns (ed. 6)
Cambridge: University Press:1931 (repr. 1960)
Full of useful miscellaneous information.

Brown, R. W. - Composition of Scientific Words
Baltimore, Md.: The Author: 1954

Wood, R. S. - An English-Classical Dictionary for the Use of Taxonomists
Claremont, Calif.:Pomona College:1966

* Stearn, W. T. - Botanical Latin
London: Nelson: 1966
Grammar, glossary, and much else of interest besides.

Dictionaries (cont.)

* Foreign Language - English Dictionaries for all of the European languages as well as Latin and Classical Greek.

Bibliographies & Nomenclators

* Pritzel, G. A. - Thesaurus Literaturae Botanicae (ed. 2)

Leipzig: Brockhaus: 1871 (repr. Milan, 1950)

This is the one, basic, library tool. One simply cannot function without it. Authors (and their dates) titles & dates of publication, size, and numbers of pages, and miscellaneous notes - also with extensive ~~systematic list~~ systematic lists of titles at the back.

* Woodward, B. B. & Townsend, A. C. - British Museum (N. H.), Catalogue of the Books, Manuscripts, Maps, and Drawings (8 vols.)

London: British Museum: 1903 - 1940 (repr. 1964)

Basic - one can survive (though not very happily) if one has Pritzel.

Nissen, C. - Die Botanische Buchillustration (2 vols. & Suppl.)

Stuttgart: Hiersemann:1951; 1966

Essential if you are going to do anything with illustrated books. The notes on authors, illustrators, engravers, and publishers give this a very broad usefullness.

Arber, A. - Herbals, Their Origin and Evolution (ed. 2)

Cambridge: University Press: 1938

Blunt, W. and Stearn, W. T. - The Art of Botanical Illustration

London: Collins: 1951

Stafleu, F. A. - Taxonomic Literature

Utrecht: F. A. Stafleu: 1967 (Regnum Vegetabile 52)

Bibliographies & Nomenclators (cont.)

* Merrill, E. D. and Walker, E. H. - A Bibliography of Eastern Asiatic Botany (2 vols.)

Vol. 1 - Jamaica Plain: Arnold Arboretum: 1938

Vol. 2 - Washington, D. C. : AIBS: 1960

Very nearly essential. Usefull far outside of its states geographical area. The subject lists at the end are particularly valuable.

* Stapf, O. - Index Londinensis to Illustrations of Flowering Plants, Ferns, and Fern Allies (6 vols.)

Oxford: University Press: 1929 - 41

* Blake, S. F. and Atwood, A. C. - Geographical Guide to the Floras of the World (2 vols.) (U. S. D. A. Misc. Publs. 401,797)

Washington, D. C. : Superintendent of Documents: 1942, 1961

The basic work.

* Frodin, D. G. - Guide to the Standard Floras of the World

Knoxville, Tenn.: Dept. Bot., Univ. Tenn.: 1964 (Mimeo)

Useful list of floras which should be in any botanical or horticultural library.

* Jackson, B. D. - Index Kewensis plantarum phanerogamarum (2 vols. & 13 Suppls.)

Oxford: University Press: 1893 - 1966

Essential in a botanical library; very useful in a horticultural library.

*Rehder, A. - Bibliography of Cultivated Trees and Shrubs ...

Jamaica Plain, Mass.: Arnold Arboretum: 1949

Very useful, so far as it goes.

Dalla Torre, K. W. and Harms, H. - Genera Siphonogamarum and Indexband

Leipzig: Engelmann: 1907, 1908 (repr. 1963,1958)

Essentially replaced by the 7th edition of Willis's Dictionary.

* Willis, J. C. (Airey-Shaw, H. K., Ed.) - Dictionary of the Flowering Plants and Ferns (ed. 7)

Essentially a list of generic names - very useful.

Bibliographies & Nomenclators (cont.)

Biological Abstracts

Philadelphia: : 1926 +

* Bibliography of Agriculture

Washington, D. C. : U. S. D. A. Misc. Publ. :1942 +

Excellent coverage

Union List of Serials

New York: H. W. Wilson:

United States Department of Agriculture Library - Botany Subject Index

Boston: G. K. Hall & Co. :1958

Synoptic Works and Dictionaries

* DeCandolle, A. P., A., & C. - Prodromus Systematis Naturalis Regni Vegetabilis (17 vols.)

Paris: Masson: 1824 - 1873

The latest treatment for many groups of dicots.

Bentham, G & Hooker, J. D. - Genera Plantarum

London: Lovell Reeve: 1862 - 1883 (repr. 1965)

Usefull. Many people consider this an indispensible work, I don't.

* Engler, A. & Prantl, K. - Die Naturlichen Pflanzenfamilien (ed. 1)(4 vols in 24)

Leipzig: Wilhelm Engelmann:1887 - 1914

If only one work of this kind is to be available, this should be it!

Particularly valuable for the illustrations.

Rendle, A. B. - The Classification of Flowering Plants (2 vols.)

Cambridge: University Press: 1925, 1930 (repr. 1963)

A good textbook, with a bias toward the British flora

Hutchinson, J. - The Families of Flowering Plants (ed. 2) (2 vols.)

Synoptic Works and Dictionaries (cont.)

Oxford: University Press: 1959

Better illustrated than Rendle - but the text is not so useful.

* Hooker, J. D. (ed.)(Trans. Mrs. Hooker) - LeMaout and Decaisne's A General System of Botany

London: Longmans, Green:1876

The illustrations are excellent and the text is useful. A basic book for a teaching library.

* Werdermann, E. and Melchior, H. (eds.) - A. Engler's Syllabus der Pflanzenfamilien (ed. 12) (2 vols.)

Berlin: Gebruder Borntraeger: 1959,1964

Preferable to either Rendle or Hutchinson. Especially valuable for the bibliographies.

* Miller, P.(Martyn, T., ed.) - The Gardener's and Botanist's Dictionary (ed. 9)(2 vols.)

London: Law & Gilbert; 1807

This is the most useful edition for all save nomenclatural purposes. It has extensive synonomy, as well as much information on economic uses.

* Chittenden, F. J. (ed.) - The Royal Horticultural Society Dictionary of Gardening (4 vols. and 2 suppls.)

Oxford: University Press: 1951 - 1969

There are keys for the identification of some genera, as well as lists of cultivars.

* Bailey, L. H. (ed.) - The Standard Cyclopedia of Horticulture (6 or 3 vols.)

New York: Macmillan: 1914 - 17

Still standard - the keys for identification in vol. 1 are very useful.

Encke, F. (ed.) - Parey's Blumengartnerei (ed. 2)(2 vols. and Index)

Berlin: Paul Parey: 1958-60

Useful for plants cultivated in northern Europe

Synoptic Works and Dictionaries

* Bailey, L. H. and E. Z. (compilers) - Hortus Second

New York: Macmillan: 1941

Very Useful for common names.

* Loudon, J. C. - Arboretum et Fruticetum Britanicum (ed. 1)(8 vols.)

London: Longman, Orme, Brown, Greene & Longmans: 1838

Full of interesting information.

* Graf, A. B. - Exotica 3, Pictorial Cyclopedia of Exotic Plants

Rutherford, N. J.: Roehrs Co.:1968

Useful for identification, the names need to be checked.

* Dallimore, W. and Jackson, A. B. (Harrison, S. G. ed.) - Handbook of Coniferae and Ginkgoaceae

New York: St. Martin's Press: 1967

Probably preferable to the next for those whose native language is English.

* Krussmann, G. - Die Nadelgeholze (ed. 2)

Berlin: Paul Parey:1960-62

Useful

* Ouden, P. den, and Boom, B. K. - Manual of Cultivated Conifers

The Hague: Martinus Nijhoff:1965

Usefull for cultivated forms.

Krussmann, G. - Handbuch der Laubgeholze (2 vols.)

Berlin: Paul Parey: 1959-62

Usefull for cultivated forms. Good line drawings.

* Davis, P. H. and Cullen, J. - The Identification of Flowering Plant Families

Edinburgh: Oliver and Boyd: 1965

* Bailey, L. H. - Manual of Cultivated Plants (ed. 2)

New York: Macmillan: 1949

The standard work.

Synoptic Works and Dictionaries

* Rehder, A. - Manual of Cultivated Trees and Shrubs Hardy in North America ...
New York: Macmillan: 1954

Economic Plants

* Hedrick, U. P. (ed.) - Sturtevant's Notes on Edible Plants
Albany, N. Y.: State Printer: 1919
A basic work.

* Burkill, I. H. - A Dictionary of the Economic Products of the Malay Peninsula (2 vols.)
Essential! Full of information!

Watt, J. M. and Beyer-Brandwijk, M. G. - The Medicinal and Poisonous Plants of Southern and Eastern Africa
Edinburgh: :1962
Full of information. Of value far outside the stated geographical limits

* Kingsbury, J. M. - Poisonous Plants of the United States and Canada
Englewood Cliffs, N. J.:Prentice-Hall: 1964
The standard work. Cannot be done without.

DeCandolle, A. - Origin of Cultivated Plants (ed. 2)
London: :1886 (repr. 1959)
The basic work.

Plant Anatomy

* Solereder, H. (Boodle, L. A. & Fritsch, F. E. trans.) - Systematic Anatomy of the Dicotyledons (2 vols.)
Oxford: University Press: 1908 -
The basic Work

* Metcalf, C. R. and Chalk, L. . - Anatomy of the Dicotyledons (2 vols.)
Oxford: University Press: 1950

* Esau, K. - Plant Anatomy
New York: Wiley: 1953

Textbooks and Miscellaneous References

* Bell, P. and Coombe, D. (trans.) - Strasburger's Texbook of Botany
London: Longmans: 1965
The best botanical textbook available.

Lawrence, G. H. M. - Taxonomy of Vascular Plants
New York: Macmillan: 1951
Valuable for the lists of recommended books.

Pirone, P. P., Dodge, B. O., and Ricket, H. W. - Diseases of Ornamental Plants (ed.3)
New York: Ronald Press: 1960

Hartmann, H. T. and Kester, D. E. - Plant Propagation
Englewood Cliffs, N. J.:Prentice-Hall:1968

Black, C. A. - Soil-Plant Relatioships (ed. 2)
New York: John Wiley:1968

Royal Horticultural Society Colour Chart
London: Royal Horticultural Society: 1966

Textbooks and Miscellaneous References

* Bartholemew, J. (ed.) - The Times Atlas of the World (5 vol. ed.)

London: Bartholemew: 1955 -

This is the best general Atlas in print.

* United States Board on Geographic Names - Official Standard Names Gazetteers (1 -110 -

Washington: Department of the Interior: -1969 -

Indispensible for finding the locations of placenames, and also for the listing of standard maps.

ESSA - World Weather Records 1951 - 1960 (vols. 1 - 7)

Washington, D. C.: Government Printing office: 1965 -

* Weast, R. C. (ed.) - Handbook of Chemistry and Physics (ed.48)

Cleveland, O.: Chemical Rubber Co.: 1967

Kingsett, C. T. - Chemical Encyclopedia (ed. 4)

New York: Van Nostrand: 1928

McLean, R. C. and Cook, W. R. I. - Plant Science Formulae (ed. 2)

London: Macmillan: 1952

McLean, R. C. and Cook, W. R. I. - Practical Field Ecology

London: George Allen and Unwin:1946

Johansen, D. A. - Plant Microtechnique

New York: McGraw-Hill: 1940

Purvis, M. J., Collier, D. C., and Walls, D. - Laboratory Techniques in Botany (ed 2)

London: Butterworth's: 1966

Moldenke, H. N. and A. L. - Plants of the Bible

Waltham, Mass.: Chronica Botanica: 1952

Spencer bequest

Steven

Individual books

Pictures (probably only the Hanfstaengl reprod. of Vermeer Delft)

Records

Misc

1. Lamp (Iranian spherical base)
2. Copper cooking dish (Russian)
3. Adamson 200th anniversary medal
4. Two (pair) of plant fossils
5. Circular slide of brain convolution
6. Swedish glass rose vase
7. Two pair brass candlesticks
8. Misc typographic material
9. Record player

Jottings.

Rust (to Talone in Lieu of Joe)

Binding books (to Nina & Bell)

Typebooks & material (to Nina & Bell)

Adamson medal (to Hugh)

Plant fossils " "

Vermeer to Joe & N

Concretion ring stone to Joe & N

Candlesticks " " "

Observ. of Trionfetta to Hugh

Transom lamp to Joe & Herta

Records (in part) to Joe & Herta

(in part) to Hugh

Record player to J & N.

Agenda to Wash. Christ