Pioneer Day, 1982

J. A. N. LEE

Pioneer Day at the National Computer Conference (NCC) has been organized by the History of Computing Committee (HOCC) of the American Federation of Information Processing Societies (AFIPS) since 1974, and has been a formal part of the NCC operations since 1979. It differs from a "normal" program in that although the topic is well defined in the same manner as other NCC programs, solicitation of presentations does not necessarily imply the production of formal papers—nor an open invitation for any author to submit proposed topics for inclusion in the sessions. An essential part of the work of the person who chairs Pioneer Day is the research that forms a backdrop against which the NCC sessions are placed. In some sense, Pioneer Day is the result of an extensive research program sponsored by HOCC and NCC instead of being a vehicle for the presentation of independently supported activities.

The topics of previous Pioneer Days at NCC have been:

1974 Dartmouth Time-Sharing System and BASIC
1975 Institute for Advanced Study and the IAS computer
1976 ENIAC (Electronic Numerical Integrator and Computer)
1977 Los Alamos Scientific Laboratory
1978 SWAC (Standards Western Automatic Computer)
1979 COBOL (Common Business Oriented Language)
1980 25th anniversary of SHARE
1981 30th anniversary of UNIVAC I

Administration

The administration of the Pioneer Day activities is much more complex than a regular NCC activity—mainly because of the need to start work on the theme at least two years in advance when an NCC budget does not yet exist. It cannot be emphasized too strongly that Pioneer Day is not a one-person activity; in many respects it is a miniconference within a maxiconference, and the Pioneer Day chairman is supported by a committee that has responsibilities similar to those of the members of the NCC Steering Committee. In another aspect, Pioneer Day is a research activity that results in sessions at the NCC; consequently the Pioneer Day committee must be knowledgeable of the topic and methods in historical research.

History of Computing Committee

It is the responsibility of HOCC to plan themes for Pioneer Day up to four years in advance and to appoint chairs two years in advance. Thus the groundwork for the upcoming Pioneer Days is laid under the initial direction of HOCC, and only during the last year of preparation is the NCC Steering Committee involved in providing the local arrangements for the activities of the day. Since most Pioneer Day chairs are not themselves historians of science, HOCC appoints a consulting historian to assist the Pioneer Day chair. Throughout the period of the FORTRAN project, the Pioneer Day committee received exceptional support from HOCC and was given excellent direction by the consulting historian, Henry S. Tropp.

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Categories and Subject Descriptors: K.2 [**History of Computing**] —*FORTRAN, people, software, systems.* General Terms: Languages, Management. Additional Key Words and Phrases: Pioneer Day, J. W. Backus, IBM Corporation, AFIPS History of Computing Committee.

Theme

The theme for 1982 was FORTRAN's 25th anniversary, and that was appropriate when the conference was first scheduled to be held in New York City, since all the work on the first processor took place in Manhattan. Houston, the actual site of NCC '82, had almost no association with either the theme or the pioneers; most of the pioneers still live on the East Coast. As a result, some people were unable to attend because of the cost of travel; others had prior commitments that precluded traveling so far.

History Minitrack

In 1981 HOCC organized a separate history session on the day before Pioneer Day, where the first three Charles Babbage Fellows presented the results of their research. The concept was repeated in 1982 to provide an additional history session on a topic disjoint from the Pioneer Day theme. This session, organized and chaired by Nancy Stern, was on the topic of "The Stored-Program Concept." The panel was comprised of J. Presper Eckert, Herman H. Goldstine, Richard F. Clippinger, and Maurice V. Wilkes. (See a report in the *Annals*, Volume 4, Number 4, October 1982, pp. 358–361.)

FORTRAN Pioneers

Identifying the pioneers who took part in the events celebrated can be difficult. In the case of topics that are demographically small, there is a good possibility that records will exist to form the basis of a list of pioneers. Such was the case for the first Pioneer Day in 1974, when the topic was Dartmouth College computing activities. In the case of FORTRAN, there were obviously many pioneers who had worked in the same location. Notices placed in leading computer journals and magazines inviting pioneers to register with the committee brought in only 12 responses. The rest of the eventual list was created by a two-year process of follow-up interconnections. A questionnaire that documented each person's claim to being a pioneer included such questions as, "Who introduced you to FORTRAN?" "Whom did you introduce to FORTRAN?" Through this linkage and suggestions from other contacts, the pioneer list printed here was created.

The Pioneer Day committee of NCC '82 determined that those persons who qualified under one or more of seven criteria should be considered "FORTRAN pioneers." In essence, those qualifying would be either members of the original development team and their direct associates, or those who made significant contributions to the language or its usage in the five years following the delivery of the first system. We urge *Annals* readers to send further names or additional information to the editors of this issue.

1. Members of the original team within IBM that developed FORTRAN for the IBM 704 computer. (Also listed are any later major contributions the pioneer made to FORTRAN.)

John W. Backus	Project manager
Sheldon F. Best	Section 5, FORTRAN I; UNIVAC 1100 FORTRAN
Richard Goldberg	Section 3, Section 5 debugging FORTRAN I
Grace (Libby) E. Mitchell	Primer, FORTRAN I and FORTRAN II
Lois B. Mitchell Haibt	Section 4, FORTRAN I
Harlan L. Herrick	Section 1, FORTRAN I
Robert Nelson	Optimization, Section 2, FORTRAN I
Roy Nutt	I/O and format, FORTRAN I
David Sayre	Editor, reference manual; assistant project manager
Peter B. Sheridan	Arithmetic, FORTRAN I; functions, FORTRAN II
Irving Ziller	Section 2, FORTRAN I; FORTRAN II

2. Managers of, and assistants to, the original FORTRAN development group.

Charles Adams	Manager of Sheldon Best, MIT
R. J. Beeber	Assistant, Section 1, FORTRAN I
Charles R. DeCarlo	Level 2 manager, FORTRAN I
Sidney Fernbach	Supervisor of Robert Hughes, Lawrence Livermore Laboratory
Robert A. Hughes	Documentation, FORTRAN I
Cuthbert C. Hurd	Level 2 manager, FORTRAN I
John C. McPherson	Level 2 manager, FORTRAN I
Walter A. Ramshaw	Manager of Roy Nutt, United Aircraft Corporation
Hal Stern	Documenter, customer liaison, FORTRAN I

3. Members of development teams for commercially sponsored processors for FORTRAN during 1957–1960 and their immediate managers.

Otto Alexander	FORTRANSIT and IBM 7070 FORTRAN
William Andrus (deceased)	IBM staff
Frank Beckman	Manager, IBM Applied Programming
Harry Bekish	IBM 709 FORTRAN II
Robert W. Bemer	Manager, FORTRANSIT development
B. C. Chapman	Atlas S1
Seymour Cray	CDC FORTRAN
A. L. Harmon	IBM staff

David A. Hemmes	FORTRANSIT
Ray Kermish	FORTRAN monitor system
E. Ward Klein	IBM 650 FORTRAN
John C. Laffan	IBM 1620 GOTRAN developer
Bernyce Brady Larner	FORTRAN II
Ray Larner	IBM 7090/94 FORTRAN IV
Leroy M. May	FORTRANSIT and FORTRAN II
C. W. Medlock	IBM 7040/44 FORTRAN IV
Herbert Meltzer	FORTRAN system maintenance
Larry Michaels	IBM 7090/94 FORTRAN IV
David Mordy	Manager, IBM 7070 FORTRAN
Florence Pessin	FORTRANSIT and IBM 650 FORTRAN
Ken F. Powell	IBM Applied Science representative, Pittsburgh
I. C. Pyle	Atlas S1
Saul Rosen	Philco ALTAC
Lin S. Woo	IBM 650 FORTRAN

4. Members of development teams for experimental and nonvendor processors for FORTRAN that were available through some form of official distributing organization prior to December 31, 1962.

Charles Davidson	FORGO, University of Wisconsin
James Field	UT FORTRAN, University of Toronto
Sarah Fleming	IBM 705 FORTRAN, General Electric Company
Dorothy B. Horning	IBM 705 FORTRAN, Standard Oil of Ohio
Stewart Lee	UT FORTRAN, University of Toronto
James H. Matheny	IBM/GUIDE 705 FORTRAN
Richard Pratt	AFIT FORTRAN developer
Seldon, ?	IBM/GUIDE 705 FORTRAN
Art Whitmore	IBM 705 FORTRAN, Westinghouse Corporation

5. Users of the original IBM 704 implementation with significant applications.

Herbert S. Bright	Supervisor, first program, Westinghouse-Bettis, 1957
Jim Callaghan	Author, first program, Westinghouse-Bettis, 1957
Harry Cantrell	User, General Electric Schenectady, 1957
Doris L. Clark	User, General Electric Schenectady, 1957
Frank Engel	Modifier of first compiler; chairman, X3 FORTRAN committee
Frances E. (Betty) Holberton	Early user, David Taylor Model Basin; member ANSI FORTRAN committee
Thomas W. Martin	User, Westinghouse Corporation, 1957
Elliott Nohr	Senior programmer, North American Aviation Corporation, 1957
Lewis A. Ondis II	Debugger, first program, Westinghouse-Bettis, 1957
George F. Ryckman	User, General Motors Research Laboratories, 1957
Ruth Callaghan Sheehy	Manager, FORTRAN test site, General Electric Schenectady, 1957
Ollie Swift	Author, algorithm, first program, Westinghouse-Bettis, 1957

6. Members of FORTRAN committees of user groups, standards committees, and supporting vendor staff before December 31, 1962.

Don Breheim	SHARE FORTRAN committee
Stan Closman	SHARE liaison
Don Furth	SHARE liaison
Martin Greenfield	Member, ANSI committee; member, early ASA FORTRAN committee
John Greenstadt	SHARE distribution secretary
William P. Heising	Chairman, ASA committee; member, early ASA FORTRAN committee
Daniel N. Leeson	1620 users group liaison
Donn Parker	SHARE FORTRAN committee
Norman Sanders	Member, early ASA FORTRAN committee

7. Persons whose contributions are considered to be significant.

Herbert Leeds	IBM course, Washington, D.C., 1957
Daniel D. McCracken	Author, first textbook, published 1961
Albert Newhouse	Teacher, University of Houston, 1957
Elliott Organick	Author, 1963 textbook
Jean E. Sammett	FORTRAN course, Adelphi University, 1957

Implementations

A list of FORTRAN implementations from 1957 to 1967 was prepared and is printed on the next page.

Program

The Pioneer Day program consisted of two sessions. Edited transcripts of the sessions are in this issue of the *Annals*. Brief summaries by William F. Aspray are included here.

1. The Early Days of FORTRAN, chaired by John Backus.

John C. McPherson, "Early Computers and Computing Institutions"

Characterizes the institutional context within which FORTRAN was developed by describing IBM's involvement in scientific computing between 1930 and 1955. The support of scientific computing at Columbia and Harvard universities and the internal development of the 604 were IBM's background in scientific comput-

List of FORTRAN Implementations

Date	Name	Machine	Author(s)	Location
1954–57	FORTRAN (0&I)	IBM 704	Backus et al.[a]	IBM
1957	FORTRANSIT	IBM 650	Bemer, Alexander, Pessin, Hemmes, May	IBM
1958	650 FORTRAN	IBM 650	Pessin, Wu	IBM
1958	FORTRAN	IBM 709	[b]	IBM
1958	FORTRAN II	IBM 704	Backus et al.; Mitchell, Sheridan, Brady, May	IBM
1958	FORTRAN III	IBM 704	Ziller, Nelson	IBM
1960	FORTRAN	IBM 1620	Laffan	IBM
1960	ALTAC	Philco 2000	Rosen, Goldberg	Philco
1960	FORTRAN	IBM 7070	Alexander et al.	IBM
1960	FORTRAN	IBM 705	Brittenham, Horning, Kuss, Matheny, Miller, Seldon, Williams	IBM/GUIDE
1960	FORTRAN	CDC 1604	Cray	CDC
1960	Honeywell Algebraic Compiler	?	Opler	CUC
1961	FORGO	IBM 1620	Davidson, McClure	Wisconsin
1961	FORTRAN	H-290	Hankins	HIS
1961	GOTRAN	IBM 1620	Laffin, Resta	IBM
1961	Automath-800	H-800	Opler, King, O'Conner, Beeber, Hopkins, Brestwick	CUC
1961	FORTRAN I	UNIVAC	?[c]	Rem-Rand
1961	FORTRAN II	LARC	CSC	Rem-Rand
1961	UT FORTRAN	IBM 1620	Lee, Field	Toronto
1961	AFIT FORTRAN	IBM 1620	Pratt	Wright Patterson AFB
1961	1401 FORTRAN	IBM 1401	Haines et al.	IBM
1961	FORTRAN	B5000	?	Burroughs
1961	FORTRAN IV	IBM 7090/4	Larner	IBM
1961	FORTRAN II	RCA 301	Hux et al.	RCA
1962	FORTRAN IV	IBM 7040/4	Medlock	IBM
1962	FORTRAN II	Univac LARC	Erdwinn, Ferguson, Gatt, Malenkoff, Nutt, Richards	CSC
1962	Automath-400	H-400	Boris and Cahill	HIS
1962	FORTRAN II	RCA 301	Hux et al.	RCA
1963	FORTRAN IV	Univac 1107[d]	Anderson, England, Erdwinn, Ferguson, Gatt, Kinney, Martin, Nutt, Perrine	CSC
1963	FORTRAN IV	UNIVAC III	Balke, Harkins, Nutt, Peterson, van der Wouw	CSC
1963	Automath-1800	H-800/1800	Chang	HIS
1963	Automath-1400	H-1400	Roth	CDC
1963	FORTRAN	CDC 160A	Neuhaus	
1963	FORTRAN S1	IBM Stretch	Glennie	UKAEA (AWRE)
1963	FORTRAN IV	IBM 7030	Bishop, Webster	IBM
1963	KINGSTRAN	IBM 1620	Field, Jardine, Lee, Lee, Robinson	Kingston, Ont.
1964	FORTRAN S2	IBM Stretch	Glennie	UKAEA (AERE)
1964	FORTRAN IV	Philco 2000	Brown, Rice, Richards, Sidrane	CSC
1964	HARTRAN	Atlas (F)	Pyle	UKAEA (AERE)
1964	FORTRAN	Orion (F)	Taylor, Harrigan	Rutherford Lab. (UK)
1964	FORTRAN	SDS910	Dunlap, Ryan	Digitek
1964	FORTRAN	CDC 3000L	Schumacher	CDC
1964	FORTRAN	CDC 3600	Tiede	CDC
1964	Fast FORTRAN	CDC 3600	?	Mich. State
1964	FORTRAN II	RCA 3301	Hux et al.	RCA
1964	FORTRAN IV	RCA 601	Best	Decision Systems
1965	PUFFT	IBM 7094	Rosen et al.	Purdue
1965	FORTRAN IV	IBM 7030	MacIntosh, Matheny, McPherson, Peterson, Sexton, Stephens	CSC

ing prior to FORTRAN. This led to IBM's interest in developing the capability (through FORTRAN) of direct computer response to algebraic-equation notation.

Robert W. Bemer, "Computing Prior to FORTRAN"

Characterizes the state of computing, primarily software, at the time of the development of the FORTRAN project in terms of modern computer concepts. Provides a useful perspective on such questions as how to choose and train programmers, and also the importance of optimization to early machines, care in early programming, and informal and flexible management to FORTRAN.

Richard Goldberg, "Register Allocation in FORTRAN I"

Describes the interface between the five major parts of the compiler, the technical details of the register allocation, and how the members of the close-knit FORTRAN group interacted. Shows the nature of the daily workings and problems confronted in the development of the first FORTRAN compiler.

Roy Nutt, "Compiler Techniques Available in 1954"

Univac's A-2, IBM's 701 Speedcode, and Laning and Zierler's mathematical translator for Whirlwind were the precursors in compiler theory to work on FORTRAN. The FORTRAN group used various techniques in their efforts at optimization, most notably the technique for parsing algebraic expressions and the method of flow analysis.

Frances E. Allen, "A Technological Review of the Early FORTRAN Compilers"

Describes in detail the structure of the FORTRAN I compiler and assesses it in light of modern compiler

1965	FORTRAN V	Univac 1108	Hall, MacIntosh, Matheny, Perrine, Stephens, White	CSC
1965	FORTRAN S3	Atlas 2 (F)	Glennie	UKAEA (AWRE)
1965	FORTRAN D	H-200	Hawkes	HIS
1965	GE FORTRAN	GE 235	?	GE
1966	FORTRAN IV	SDS 9300	Owens, Hartman	SDS
1966	FORTRAN H	S/360	Holliday et al.	IBM
1966	FORTRAN H	H-1200/ 2200	Shy, Gintall	HIS
1966	COS FORTRAN	CDC 6600	McCrossen	CDC
1966	FORTRAN J	H-4200	Shy, Freiburghouse	HIS
1966	FORTRAN IV	RCA Spectra	Moshos	RCA
1967	DITRAN	CDC 1604$	Moulton, Muller	Wisconsin
1967	FORTRAN IV	Phillips	Erdwinn, Klunder, van der Wouw	Phillips/ Apeldoorn
1967	FORTRAN IV	S/360-67	Drusts, Rice, Sidrane, Smith, Swift, Wakino	CSC
1967	FORTRAN T3	Titan (Atlas 2) (F)	Larmouth	Cambridge Univ.
1967	FORTRAN G	S/360	?	Digitek
1967	FORTRAN F (DOS version)	S/360	?	Digitek
1967	MOD 8 FORTRAN	H-8200	Jackson et al.	HIS
1967	WATFOR	S/360	Shantz et al.	Waterloo

Abbreviations

AWRE Atomic Weapons Research Establishment
CDC Control Data Corporation
CSC Computer Sciences Corporation
CUC Computer Usage Corporation
F Ferranti
HIS Honeywell Information Systems
RCA Radio Corporation of America
UKAEA United Kingdom Atomic Energy Authority

Sources

J. E. Sammet, *Programming Languages*, New York: Prentice-Hall, 1969; memory; private correspondence; extensive research by Daniel Leeson (IBM), Brian Chapman (UKAEA), Roy Nutt (CSC), Martin Greenfield (HIS), and Millie Price and Richard Ragan (CDC).

[a] The designation *Backus et al.* indicates the group identified in the 1957 WJCC paper's author list (see the Bibliography in this issue).

[b] Officially (from IBM files), this work was a straight conversion from the 704 implementation done by the Backus group. Medlock (private correspondence) attributes the management of this work to Harry Bekish.

[c] A question mark indicates that the information is unknown. Readers are invited to correct and/or update the list.

[d] Also later implemented on the Burroughs 5500, CDC 3600, and Univac 1108.

theory, with examples of early algorithms and how they were originally encoded.

2. The Institutionalization of FORTRAN, chaired by Jeanne Adams

Herbert S. Bright, "Early FORTRAN User Experience"

Discusses the difficulties in the late 1950s of using the computer for large-scale computing—for example, in the solution of elliptic partial differential equations associated with the design of nuclear reactors. The staff at the Westinghouse-Bettis Atomic Power Laboratory worried that it would not be feasible to hire sufficient numbers of programmers to write, debug, and maintain the large amount of assembler code associated with reactor design. Their FORTRAN compiler, the first one to be delivered by IBM, was more successful than they had imagined possible in alleviating this problem.

Robert A. Hughes, "Early FORTRAN at Livermore"

Describes Livermore's early interest in FORTRAN, the early customizations of FORTRAN by various users at Livermore, and the multifaceted applications of FORTRAN today—including the writing of support software such as loaders or test editors.

William P. Heising, "The Emergence of FORTRAN IV from FORTRAN II"

Describes the evolution of FORTRAN between 1957 and 1964, the period in which FORTRAN II was developed for the IBM 704 and FORTRAN IV for the IBM 7094. The chief advantage of FORTRAN II over its predecessor was the ability to break large applications into independent compilations through the introduction of separately compilable subprograms. During the next several years SHARE, IBM, and the ALGOL committee weighed the relative advantages of ALGOL and FORTRAN. IBM developed a much-improved FORTRAN IV when it was clear that ALGOL would not supplant FORTRAN; SHARE developed SIFT to translate FORTRAN II into FORTRAN IV.

Martin N. Greenfield, "The History of FORTRAN Standards"

Gives the chronology of the formation of the first standards committee, concentrating on the importance of standardization in elevating the status and value of higher programming languages. The stability consequent upon standardization is significant for companies interested in investing in programming-language development.

Daniel D. McCracken, "The Early History of FORTRAN Publications"

Wrote the first commercially published book on FORTRAN in 1960 (published in 1961). Describes problems of the early textbook writer, such as the lack of perceived demand for programming texts and the difficulties of finding machine time to verify technical details.

Charles Davidson, "The Emergence of Load-and-Go Systems"

Describes how universities such as Wisconsin, Purdue, and Waterloo, confronted with the problems of providing educational access to the computer for up to 1000 students a semester, developed their own variants on FORTRAN: GOTRAN, FORGO, QUICKTRAN, PUFFT, DITRAN, and WATFOR.

James M. Sakoda, "A Dynamic Storage Allocation Language—DYSTAL"

Describes the list-processing language DYSTAL he wrote in 1965 using FORTRAN subroutines and functions, concentrating on technical features of DYSTAL, and showing how to do string processing, list processing, simulation, formula translation, and other nonnumeric tasks not generally thought to be appropriate for the use of FORTRAN.

Bruce Rosenblatt, "The Successors to FORTRAN; Why Does FORTRAN Survive?"

FORTRAN permitted the solution of three problems confronting any programming language: how to make a programming-language processor write as efficient object code as that produced by hand programming; how to maintain and support programs; and how to perpetuate the use of the language. The adaptability of FORTRAN is an additional reason for its continued success.

Proceedings Papers

Pioneer Day 1982 is the first to have included papers in the NCC *Proceedings*. Reviews of these papers are in the Reviews section of this issue of the *Annals*, and the verbal presentations by the same authors are included in the edited transcripts. The four papers in the NCC *Proceedings* are:

Allen, F. E., "A Technological Review of the FORTRAN I Compiler," pp. 805–809.
Bemer, R. W., "Computing Prior to FORTRAN," pp. 812–816.
Greenfield, M. N., "History of FORTRAN Standardization," pp. 817–824.
Sakoda, J. M., "DYSTAL: Non-numeric Applications of FORTRAN," pp. 825–830.

Publicity

One of the publicity devices that was used to attract attendees to the Pioneer Day sessions was small yellow cards indicating when the Pioneer Day sessions were

The 25th Anniversary
of
FORTRAN
June 9, 1982
Pioneer Day
1982 National Computer Conference
1:45 p.m. The Early Days of FORTRAN
3:30 p.m. The Institutional-ization of FORTRAN

FORTRAN
—"the infantile disorder"—
is hopelessly inadequate for whatever computer application you have in mind today . . . too clumsy, too risky and too expensive.
—Edsger Dijkstra

God is Real
(unless otherwise declared in an explicit type statement or in an implicit declaration).
—B. Graham

I don't know what the language of the year 2000 will look like but I know it will be called FORTRAN
—Tony Hoare

FORTRAN
is a collection of Warts, held together by bits of Syntax.
—Anon.

FORTRAN
is a language to avoid
—unless you want some answers
—Anon.

The one central attribute of FORTRAN
is its name
—Martin Greenfield

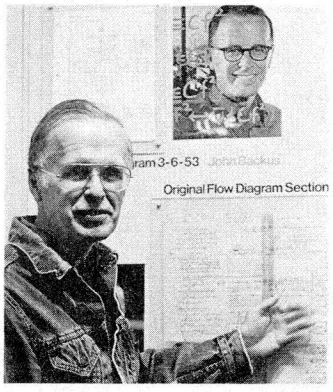
In the good old days, physicists repeated each other's experiments, just to be sure,
Today they stick to FORTRAN
so they can share each other's programs, bugs included.
—Edsger Dijkstra

Sayings from cards distributed at Pioneer Day.

to take place. The reverse sides of the cards were imprinted with well-known sayings about FORTRAN—not all complimentary. The Pioneer Day chairman believed that the FORTRAN concept was so strong that it was in fact a compliment to be the subject of "digs" from such eminent computer scientists as Edsger W. Dijkstra. These cards came in sets of eight (including one blank reverse side). They were passed out everywhere at NCC and were sought avidly by a number of FORTRAN enthusiasts.

Press Conference

With the assistance of Nadine Fletcher of IBM San Jose, a press conference was arranged on the morning of Pioneer Day. All nine original pioneers in attendance at NCC were present, led by John Backus; the session was chaired by JAN Lee.



John Backus with original FORTRAN flow diagrams.

Exhibit

The concept of an exhibit for the FORTRAN 25th anniversary was based on the success of the exhibit at the UNIVAC I anniversary in 1981. IBM agreed to produce an exhibit, and exhibit designers coordinated with the Pioneer Day committee on the conceptual design and identification of artifacts. The resulting exhibit is described by Daniel N. Leeson in this issue. After NCC the exhibit was shown at the IBM Programming Center at Santa Teresa, California, and at the 1982 SHARE meeting in New Orleans.

Film

IBM offered to produce a film commemorating the 25th anniversary of FORTRAN to be shown repetitively at the exhibit. The film went through several versions before the one finally used at NCC was selected: a 12-minute look at the pioneers and their work (the length of the film was based on "sitting ability" of the potential viewers). Perhaps a longer version will be made available by IBM for use in universities and professional societies. The film is also described by Leeson in this issue.

Archive

The guidelines for Pioneer Day established by HOCC specify that one of the potential objectives is to establish an archive for materials related to the topic. The assumption was made at that time that such an archive would be established at the Charles Babbage Institute (CBI), but a number of considerations led the 1982 Pioneer Day committee to decide to establish a separate archive. The Pioneer Day chairman has been active in the establishment of other archival collections at Virginia Polytechnic Institute and State University. He proposed to CBI and HOCC that the FORTRAN archive be established at Virginia Tech. The proposal was approved, and the special collections division of the Carol M. Newman Library at Virginia Tech is looking forward to working on the archive. The first three elements of the collection will be the IBM exhibit, the files of the Pioneer Day organizing committee and materials collected during its work, and the FORTRAN files of the American National Standards Committee for the years 1962–1982.

Banquet

The responsibilities of the Pioneer Day committee have expanded through the years to include a number of ancillary activities surrounding the NCC sessions. The major event is the Pioneer Day banquet, which has been as simple as a pay-as-you-go reception (at the SHARE session in 1980) and as extravagant as a black-tie dinner (at the UNIVAC session in 1981). In accordance with the wishes of John Backus, the program at the FORTRAN banquet was kept simple and dignified while at the same time giving the opportunity for a little levity. Bernard A. Galler, editor-in-chief of the *Annals*, a member of HOCC, and a long-time FORTRAN user, was master-of-ceremonies/toastmaster and wove tales through the anecdotes told by several pioneers. At the end of the evening, the film IBM had produced for the exhibit was screened. A commemorative plaque (shown in the front of this issue of the *Annals*), was presented to Ralph Gomery, vice-president and director of research for IBM, by Daniel D. McCracken, chairman of the AFIPS History of Computing Committee, and reproductions of the original two FORTRAN manuals were given to everyone at the banquet.