Introduction

The Church of Jesus Christ of Latter-day Saints supports a worldwide educational system. In 1974 approximately 47,000 students were enrolled on 75 campuses throughout the United States, Mexico, South America, and the South Pacific. The Physical Facilities Division at Brigham Young University administered facilities planning, construction, and maintenance for all of these schools through the Church Commissioner of Education Office in Salt Lake City, Utah. This history is about the BYU Provo campus and the people who build and maintain it. Other Church schools are referred to only briefly.

As the Brigham Young University approached its 100th year, a four volume history was prepared by former President, Ernest L. Wilkinson and his committee. Each department of the university provided this team with source material for the comprehensive 100 year history. The previous chapters of this history were the Physical Plant Department's contribution to this project.

Personnel 1974-1978

This chapter does not include a section about personnel because this information is found in the previous chapter, chapter 8 (A Pictorial Survey of the Physical Plant Department-1974), beginning on page 422).
Windows of Heaven Sculpture - 1975

Erection of Windows of Heaven sculpture, 1 July 1975

Sculptor, Francis Riggs, fabricating Windows of Heaven work - 27 June 1975

Project WO-D-6874 Data
This sculptural work by Francis Riggs was commissioned as part of Brigham Young University’s Centennial Celebration.

Architectural and structural assistance: Markham & Markham
Owner's Representative: Fred A. Schwendiman
Contractor: Paulsen Construction Co.
Project cost: $10,708 (includes sculptor's fee and fabrication)
Tree of Wisdom Sculpture - 1975

Project 119-75-561-60 Data

Sculptor: Frank Nackos
Architectural and Structural Assistance: Markham & Markham
Owner's Representative: Fred A. Schwendiman
Contractor: Paulsen Construction Co.: 13 May 1975 to 15 July 1975
Project Cost: $30,500 (including sculptor's fee)

Sculptor, Frank Nackos - 1 July 1975
Tree of Wisdom sculpture under construction - 8 July 1975
Tree of Wisdom by sculptor, Frank Nackos, was commissioned as part of Brigham Young University's Centennial Celebration - 1975

Campus 1974-1978

494
Campus entrance sign, south side of 1200 North 150 East - 1976

Campus 1974-1978

495
A sculptural Work by Dennis Smith - 1977
When the Smith Family Living Center was landscaped in 1957, a circular area 30 ft. in diameter was left in the concrete walk southeast of the building. It was planted in lawn, and served no logical or aesthetic purpose for the following twenty years. Then in 1977, funds were made available to commission Dennis Smith of Highland, Utah to create a statue with a family theme. When it came to choosing a location on campus for this bronze sculpture, all concerned were in agreement that this circular area was the proper place.
Boyd Datwyler, BYU Landscape Architect, designed the base in collaboration with the sculptor. Christiansen Brothers, who were then building the Kimball Tower, constructed the base. The bronze casting was done by Wasatch Bronze of Lehi, Utah.
First Born Sculpture - 1977 location

Dedication of the First Born bronze statue by Dennis Smith - 1 October 1979

Campus 1974-1978

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The name Y Bell does not refer to just one bell. Actually there have been three instruments that have gone by this name. The first Y bell hung in the Lewis Building on Third West and Center Street. Little is known of this bell other than it went down in the fire of 1884 and for some reason was never retrieved (Faculty Minutes #4, November 1883-June 1885, pp.56-57, BYU Archives). For several years the school operated without a bell until James E. Talmage installed battery-operated electric class bells in the ZCMI Warehouse (Faculty Minutes #5, August 1885-December 1891, pp. 118,126, BYU Archives). The Academy Building (1892, later called Education Building) did not have a bell for the first 20 years. During this time, class changes were announced by ringing a steel triangle in the hall (Faculty Minutes, September 10, 1895). In 1912, a 36-inch diameter cast iron bell was purchased from the American Bell Foundry Company of Northville, Michigan and installed in the Academy Building. It had a dull sound rather than the characteristic ring of a bell (Tale of Two Tabernacles, N. L. Christensen, 1968, BYU Archives).

When it was decided in 1918 to raze the Old Tabernacle, or Provo Meetinghouse as it was called, the bell that hung in its steeple was moved to the tower of the Education Building. This nickel bell was cast by the McShane Bell Foundry of Baltimore, Maryland in 1887 (The Old Y Bell, McQuire in the "Voice of the Campus," December 1934, attached to the Y News of December 12, 1934).

The old cast iron bell was given to the Boy Scouts of America and mounted outdoors at Camp Maple Dell in Payson Canyon (Karl A. Miller). The McShane nickel bell, in use to this day (2005), has a beautiful tone and a very eventful history. When it was first installed in the Education Building it was rung by a long rope which hung from the belfry down through the rooms to the second floor in the hall. This bell was always rung after athletic victories and other special occasions. It was on such an occasion as this that the bell was cracked. After a hard-earned basketball victory over the University of Utah in 1949, a group of overly enthusiastic students climbed the stairs to the belfry and pounded the bell with heavy hammers. They did not keep time with the natural rhythm and an unusual stress was developed within the bell. This resulted in a crack up one side very similar to the Liberty Bell of national fame.
Y Victory Bell Relocation Continued - 1978

The bell was removed and the crack was repaired under the supervision of Karl A. Miller and Richard L. Bradshaw, who secured the services of John Champaux, traveling instructor from the Oxyweld Company, and Frank Hemingway, an expert welder from the Union Pacific Railroad shops who did the actual welding. At this time it was mounted on a trailer and moved to each sports event in the hope that it could be rung after the game to announce a victory (Karl A. Miller).

The bell and trailer were stolen in the spring of 1958 and discovered six months later in a field west of Springville. After this, the student body took action, and it was permanently suspended in a steel tower located on the west side of the campus near the edge of the hill. This Y Bell Tower was dedicated during the Homecoming Assembly of 1959. This installation served well until February 4, 1973, when the bell came tumbling down as it was being rung after the dedication of the Marriott Center (The Daily Universe, February 6,1973). The yoke which supported the bell was broken and the bell itself was cracked extensively. In fact, the top was completely broken out and a piece of the bell metal was missing when it was all gathered up and delivered to the Physical Plant shops. Another welding job was not thought possible because the damage was so extensive, but an attempt was made. Ray Mortensen, a welder, Elmo Croft, a machinist, and Evan Miner, a student assistant, under the supervision of J. Petty Jones, Foreman, successfully accomplished this difficult task. After a carefully controlled cooling-off period, the bell was again mounted in the tower. Its beautiful ringing tone was again heard after victorious athletic events. There were a few scars and bruises, but its tone was as good as ever. The old Y bell was rung faithfully after every victorious athletic event for several years after this 1973 repair. Since most of BYU’s home games were played in the Marriott Center or the Stadium at the north edge of campus, it was decided to relocate the bell to a site at the southwest corner of the Marriott Center.

Boyd Datwyler designed the cast stone bell support, Buehner Concrete Company of Salt Lake City cast it, and Staheli Construction Company erected the support and poured the concrete base slab surrounding it. Personnel of the BYU Physical Plant Department moved the bell to this new location and suspended it September 1978.

Campus 1974-1978
499
The Y Victory Bell at the Marriott Center location - September 1978

Campus 1974-1978
500
J. Reuben Clark Law Building - 1975

The Board of Trustees of Brigham Young University authorized the establishment of a law school with a Juris Doctor (J.D.) degree to be awarded upon completion of a six semester program. Construction of a new building, which would accommodate 500 to 600 law students, was also approved.

A committee was appointed to study law school needs and to prepare a Building Program. Visits were made to nine university campuses which had recently constructed law school buildings of a similar size. A report, including photographs, was made of these visits to assist the architect and others in the planning of the law building for the BYU campus. The committee subsequently prepared a program of requirements outlining the needs to be met to adequately house the J. Reuben Clark School of Law. Lecture rooms, faculty offices, law library, and student organization offices are included in this five floor building along with additional facilities to accommodate three Church wards.

This building was named in honor of Joshua Reuben Clark, Jr., a great scholar, teacher, lawyer, diplomat, and counselor to three presidents of the LDS Church. He was raised on a farm in Grantsville, Utah, attended the University of Utah, and received a degree in law at Columbia University. He filled many responsible positions in state and international affairs, the last of which was ambassador to Mexico. He left an eminently successful career when he accepted a call from President Heber J. Grant to serve as a general authority. The remainder of his life was devoted to the Church as a leader, scholar and writer. His great accomplishments in the field of law and his numerous scholarly writings make it fitting that his name be associated with the Law School on the Brigham Young University campus (Library Dedicatory Program, October 10, 1962, p.5).

On October 10, 1962, the BYU main library was named in honor of Joshua Reuben Clark, Jr. January 10, 1974, this building was named the Harold B. Lee Library after the recently deceased President of the Church. This change in name was necessary because the Law School Building, which was nearing completion, was to be named the J. Reuben Clark Building. (Construction Records, Physical Plant Planning and Construction Office.)
Architect's Rendering of the J. Reuben Clark Law Building

Project 735-71-001 Data

Building Program: Ephraim Hatch
Architect: Fetzer & Fetzer
Structural Engineer: S.T.E.P. Engineers (W. Baumann)
Mechanical Engineer: Bridgers & Paxton
Electrical Engineer: Nielson Engineering
Date of Bid Opening: 17 April 1973
General Contractor: Paulsen Construction Co.
Contractor's Representative: Byron Paulsen

Project Coordinator: Willard Stephensen
Owner's Representative: Sam F. Brewster, and Fred A. Schwendiman
Floor Area of Building: 97,440 gross sq. ft.
Final Project Amount: $4,646,116.06
Final Cost per Sq. Ft.: $42.72
Date of Completion: 29 August 1975

Buildings 1974-1978
502
The Catholic Church closed the St. Francis School, and it stood empty for a few years prior to the time that BYU rented it to commence the school of law. A lease was signed on February 1, 1972 for the use of this 45,402 sq. ft. building located at 300 North on 900 East Street in Provo, Utah. Acquiring this space made it possible to begin building a law book collection and to commence the first class of students.

The law school moved out of the St. Francis School and into the new J. Reuben Cark Law School for the 1975-76 school year (Space Management Office Records).

Buildings 1974-1978
504
J. Reuben Clark Law Building - Construction Completed - 1975

Buildings 1974-1978
506
Dedication of Centennial Carillon Tower - 10 October 1975

Centennial Carillon Tower - 1975

Carillon Facts

Groundbreaking: February 17, 1975
Dedication: President Spencer W. Kimball, 10 Oct. 1975
Four methods of playing: by hand performance of carillonneur on baton-style clavier; by a two-manual keyboard located at the base of the tower; by a coded tape; and by a clock set to strike the hours. The clavier plays all fifty-two bells. The electric mechanisms play the lowest thirty-seven bells.
Carillon manufacturer: I. T. Verdin Co., Cincinnati, Ohio; Petit and Fritsen, Aarle Riztel, Netherlands
Planning committee: Sam F. Brewster, Parley L. Belnap, Fred L. Markham, and Lorin F. Wheelwright
University carillonneur: John T. Longhurst
Other carillons: There are approximately 175 cast-bell carillons in the United States. The BYU installation is the only one of its kind between Denver and the West Coast.
Financing: The project cost for tower and bells was provided through generous contributions of faculty, student body, alumni, and friends of the University.

Project 735-70-250-10 Data

Architect: Markham & Markham
Consultants: Hoff Hughes, Nielson Eng.
Bid Opening Date: Contract Negotiated
Contractors: Paulsen Const. and Otto Buehner Co.
Project Coordinators: Al Nelson and Scott Briggs
Verdin Bells: $157,504.00
Construction Cost: $559,455.15
Date of Completion: 15 September 1975
Centennial Carillon Tower

Fred Schwendiman, Lorin Wheelwright and Sam Brewster
Prime movers on the Carillon construction project.

John, Dixon and Fred Markham
Architects for the Carillon Tower

Carillon Tower construction

Buildings 1974-1978
508
The 97-foot bell tower was fashioned after the time-honored tradition of ringing musical strains over university and college campuses and was the first of its kind in the Intermountain West. Dedicated on a site overlooking campus (for commemoration of BYU's centennial year), the Centennial Carillon Tower brought a welcome landmark, as well as a continued musical reminder of the purpose and history of this university through the playing of chimes and hymns.

The 52 cast bronze bells from Holland (totaling almost 27,000 pounds) can be seen from all four sides of the tower and can be played three different ways: with the clavier, by magnetic tape, and by a piano-style keyboard. The bells are played daily on the hour, both mechanically and by hand, for concerts by university and visiting carillonneurs, and for each year's commencement exercises. The bells have also been rung on such special occasions as the 1987 U.S. Bicentennial "Bells Across America" honoring the U.S. Constitution and the 1989 national "Bells of Tribute to George Washington" honoring the 200th anniversary of his inauguration as President; and the 1993 “Bells for Hope” national ceremony of 100 universities joining across the nation in the ringing of bells to show support as new President Bill Clinton took office.
Centennial Carillon Tower - Brigham Young University - 1975

Buildings 1974-1978

510
University Press Building Addition - 1975

The University Press Building is located on 1700 North at about 800 East. A warehouse type addition was constructed to the north end of this structure in 1975.

**Project Data**

- **Building Program:** Ephraim Hatch
- **Plans and Specifications:** Lee Bigelow and Ferral Ogilvie; BYU
- **Structural Design:** Dixon Markham
- **Owner's Representative:** Fred A. Schwendiman
- **General Contractor:** Layton Construction Company
- **Floor Area:** 12,000 gross sq. ft.
- **Final Contract Amount:** $14,894.00
- **Cost per Sq. Ft.:** $12.07

_Addition on left, Press Building on the right - 2 September 1975_  
_Press Building addition complete and in use - November 1975_
Wilkinson Center Bookstore Addition -1975

The Ernest L. Wilkinson Center provides many services and facilities for the students of Brigham Young University. The original structure of 287,539 square feet on six levels was finished in 1964 at a cost of $6,765,000. Office space is provided for student body officers, and conference rooms where food is served are available to students and faculty. Many services are housed in this building including a cafeteria, ballroom, barber shop, photo studio, games area, bowling lanes, theater, bookstore and more.

As the student body increased from 15,000, for which the building was originally planned, to more than twenty-five thousand, the need for expanding the bookstore became evident.

Before the architect commenced his work, a committee was appointed to study the space needs of the Bookstore. This committee consisted of Lyle Curtis, chairman; Neal Lambert, faculty representative; Roger Utley, Bookstore Director; and Fred Schwendiman, Vice-President, Business Affairs. Ephraim Hatch of the Physical Plant Department coordinated this phase of the planning, and prepared the Building Program Document.

Project 735-74-111 Data

Architect: Markham and Markham
Structural Engineer: Dixon Markham
Mechanical Engineer: Heath Engineering (Lewis Wilson)
Electrical Engineer: Nielson Engineering
Date of Bid Opening: 22 May 1974
General Contractor: Layton Construction Company
Contractor's Representative: L. O. Dansie
Owner's Representative: Sam F. Brewster and Fred Schwendiman
Floor Area - Building Addition: 43,712 sq. ft.
Final Project Amount: $1,909,334.96
Cost per Square foot: $33.54
Project Coordinator: Francis "Finn" Murdoch
Completion Date: 30 September 1975

Architects for the Bookstore Addition, left: David Markham, Kent Patton, Mae Watkins, Dixon Markham, John Markham, and Charles Fresnak
Bookstore addition nearing completion - 15 September 1975

Buildings 1974-1978
513
Bookstore addition stocked and in use - 7 January 1976

Buildings 1974-1978

514
Earth Science Preparation Laboratory - 1976

Tours, lectures, and a gift shop highlight one of the nation’s most extensive fossil collections ranging from ice-age mammals to ancient forms of sea life (including dinosaurs). In 1987 the building was renamed the Earth Science Museum. An addition of approximately 4,000 square feet was constructed in 2005 to consolidate bone storage from underneath the stadium and other areas of campus.

**Project Data**

- **Building Program:** Ephraim Hatch
- **Preparation of Plans and Specifications:** Lee Bigelow and Ferral Ogilvie, BYU
- **Date of Bid Opening:** 13 June 1975
- **General Contractor First Phase:** Tolboe Construction Co.
- **General Contractor Second Phase (Interior Finish):** Johnson Contracting Corp.
- **Floor Area:** 9,300 Gross sq. ft.
- **Total Cost, both contracts:** $130,422.00
- **Cost Per Sq. Ft.:** $14.00

Earth Sciences Museum, located at 1680 North Canyon Road (West of the Stadium) - 1976

**Buildings 1974-1978**

515
Harold B. Lee Library Building Addition – 1976

A library has been an important part of Brigham Young University since it was established in 1875. For the first few years, a small book collection was kept under lock and key in the principal's office. When the Education Building on the Lower Campus was completed in 1891, a library room was provided. The collection grew over the following years, and in 1925 it was moved to the Upper Campus into the Heber J. Grant Library Building. This 23,000 sq. ft. building was outgrown and replaced by the Harold B. Lee Library of 205,747 sq. ft. in 1961.

The Lee Library was planned for a 1,000,000 volume book collection and the study needs of 12,000 students. Within nine years after completion of this building, the student body grew to 25,000, a ceiling set by the Board of Trustees. The one millionth book was acquired in 1971, just ten years after completion of the building. Study space was, of necessity, reduced to a fraction of what it should be and books were being stored in rented space off campus. In view of these conditions, the Board of Trustees authorized the preparation of plans for a Library Building addition to meet the study needs of the student body and to provide book storage space for the future (Library Building Program, August 1, 1973, p.3).

As with all major construction on the BYU campus since 1957, a committee was appointed by the President to study the needs of the library. This committee worked with Ephraim Hatch of the Physical Plant Department in the preparation of a Building Program which served as a guide for the architectural firm of Robert A. Fowler, Salt Lake City, Utah. Construction bids were scheduled to be opened in September of 1974 and completion was expected two years later, in 1976.

On October 10, 1962, the first phase of BYU library was named in honor of Joshua Reuben Clark, Jr. January 10, 1974, this building was named the Harold B. Lee Library after the recently deceased President of the Church. This change in name was necessary because the Law School Building, which was nearing completion, was to be named the J. Reuben Clark Building. (Physical Plant Department Records).

### Project 735-73-102 Data

- **Building Program:** Ephraim Hatch
- **Architect:** Robert Fowler Assoc. Architects
- **Structural Engineer:** Baumann, Christensen & Assoc.
- **Mechanical Engineer:** Bridgers and Paxton
- **Electrical Engineer:** Nielson Engineering
- **Date of Bid Opening:** 22 October 1974

- **General Contractor:** Layton Const. Co.
- **Contractor's Representative:** Alan S. Layton
- **Owner's Representative:** Fred A. Schwendiman
- **Floor Area:** 225,000 sq. ft.
- **Total Project Cost:** $10,808,939.72
- **Date of Completion:** 15 February 1977 (occupied 1976)
Architect’s rendering of the Lee Library Phase Two Addition - 1976

Buildings 1974-1978
517

Committee members not present for photograph: Sterling Albrecht, Marilyn Arnold, M. David Merrill, Darrell Monson, David Harmon (student), Phil Marriott (student), Karl White (student)

Buildings 1974-1978
518
Library addition construction, May 1975
The 1961 Library Building on the right, the Smith Family Living Center on the left background

Buildings 1974-1978
519
Library Addition, 1 July 1975

Library floors must be structurally capable to support heavy books. The Eyring Science Center is seen in the background of this photo

Buildings 1974-1978

520
The Harold B. Lee Library addition Cornerstone Ceremony, 13 April 1976

Buildings 1974-1978
521
Library interior completed and ready for students, 15 March 1977

Buildings 1974-1978

522
Ceramics, Sculpture, Industrial Education Laboratory Building (D&TB) - B66 - 1976

This concrete structure, measuring 80 ft. by 120 ft., is located east of the William H. Snell Building. The walls, roof and second floor are constructed entirely of post tensioned double tee concrete components which were fabricated in Salt Lake City, Utah and transported to Provo.

**Project Data**

**Building Program:** Ephraim Hatch  
**Preparation of Plans and Specifications:** Lee Bigelow, BYU Planning Section  
**Structural Design:** Dixon Markham  
**Electrical Design:** Grant Clement and Harold Chipman, BYU Electrical Shop  
**Owner's Representative:** Fred A. Schwendiman  
**Contractors:** Ralph S. Dixon, First Phase; Sherwin M. Johnson, Second Phase  
**Floor Area:** 19,412 gross sq. ft.  
**Total Amount of Project:** $258,345.22  
**Cost per Sq. Ft.:** $12.62

*Images: B66 Ceramics, Sculpture, Industrial Education Laboratory Building and Sculpture Laboratory - one of many laboratories in this building*
The city block from 500 to 600 north on the east side of University Avenue was the Brigham Young Academy campus from 1892 to 1911. When the Maeser Building was constructed on Temple Hill in 1911, Brigham Young Academy functioned on two campuses, an "Upper" and a "Lower" campus.

By 1976 the buildings and utilities on the Lower Campus became old, and it was determined advisable to sell this property, consisting of four buildings, the Academy Building, Collage Hall, Arts Building, and Training Building. A private group purchased it, but could not realize their plans. It was then sold and resold several times, then in 1994 Provo City purchased it with the intent of reselling with a demolition permit for private commercial development. A restraining order related to a historical preservation easement prevented this from happening.
A feasibility study indicated that the Provo City Library could be relocated to the Academy and College buildings if they were structurally improved and restored in compliance with the historical preservation easement. No practical use could be found for the Arts and Training buildings, and they were razed. The condition of the buildings had been deteriorating due to weather and vandalism throughout the 20 years from the time BYU sold it. As a result, they were costly to restore. Money was accumulated by a volunteer group, however, and these funds, along with a Provo City bond was sufficient to accomplish the task.
Deseret Towers - W Hall -1978

Deseret Towers is a BYU student residential housing complex located on 1430 North 900 East. Space was available for one more residence hall just east of the Monte L. Bean Museum on 1430 North. The need existed for more university housing, and the Morris Center food facility was adequate in size to accommodate an additional number of students. Construction began on what was designated W Hall 19 October 1977.

Project 132 Data

**Building Program:** Ephraim Hatch

**Plans and Specifications:** F/F/K/R Architects

**Structural Engineer:** William Baumann

**Mechanical Engineer:** Bridgers & Paxton

**Electrical Engineer:** Bomquist & Brown

**Owner's Representative:** Fred A. Schwendiman

**Contractor:** Christiansen Brothers Associates

**Floor Area:** 51,193 gross sq. ft.

**Final Project Amount:** $2,710,573.05

**Final cost per Sq. Ft.:** $51.17

*Deseret Towers W Hall site, southwest of existing residence halls*  
*Deseret Towers W Hall under construction*
David O. McKay Building Addition - 1978

This project included a 53 ft. by 54 ft. addition on the north end of the building and extensive remodeling of the interior for the College of Education.

Project 735-77-130 Data

Architect: Markham & Markham
Contractor: Finn B. Paulsen
Date of Contract: 19 October 1977
General Contractor: Finn B. Paulsen, Inc.
Contractor's Representative: David F. Paulsen
Owner's Representative: Fred A. Schwendiman
Floor Area: 10,300 sq. ft.
Total Project Amount: $1,408,709.33

North addition to McKay Building nearing completion - 11 May 1978  McKay Building interior remodeling - 15 November 1977
Missionary Training Center (MTC)
By BYU Exec. Vice President Ben E. Lewis

With the growth of the Church over the years, the number of persons being called to serve as missionaries for the Church increased correspondingly. For many years the time spent training the new missionaries going into the field was relatively short, and the training for those going to foreign countries where it was necessary to learn a new language took place upon their arrival to the countries where they would be serving, and not before. It was decided [about 1961] to experiment by giving training in learning their new language prior to their going into the field, and Terry Hansen, a Professor of Spanish at Brigham Young University and a former Mission President in a Spanish speaking mission, was invited to conduct a language training program with a selected group of missionaries scheduled to go to a Spanish speaking Mission. The results proved so successful, the decision was made to increase the numbers receiving this language training. These missionaries were housed in homes acquired by the University in connection with its expansion under the approved University Master Plan. The number of houses available for this purpose was limited, and soon the numbers of missionaries receiving language training became so many it became necessary for the University to turn over one of its residence halls, Amanda Knight Hall, for this purpose.

The numbers increased, and in its efforts to accommodate the situation, the University made available another of its Residence Halls, the Knight Mangum Hall, for missionaries receiving language training. The University soon faced a critical shortage of housing for both students and missionaries. The realistic answer was that additional facilities needed to be built to satisfy the demand. BYU received authorization to devise a schematic plan for meeting the needs of the expanding missionary program. The immediate question was, “Where would be the best place to construct new buildings that would be conveniently adjacent to the University without providing ample space for future expansion of the University, and not interfere with its Master Plan.”

One of the properties I had purchased for the University was a sizeable acreage owned by a man named John Beesley. He was not a member of the Church, and had an antagonism about selling any of his property to the University. I had been invited to serve on the Board of Directors for the Walker Bank and Trust Co., and received approval from the First Presidency to accept that invitation. One of the members of the Walker Bank Board was John Beesley. He and I became good friends, and I went to work on him to sell his land to the University which was located on the outer fringe of our Master Plan. Like President Lee had predicted, a few of the critics of the University complained about our purchase of the Beesley property, accusing us of being "land grabbers." At the time of the Beesley property purchase we did not have any specific plans at the University for its use, and certainly not to be used for the construction of buildings for the training of missionaries. But as we considered where the new buildings might be built, this appeared to be the ideal location, and we proceeded on that basis, knowing from our experience that it would undoubtedly just be a matter of time when further expansion would be required.
The schematic plans, as developed, provided for a cluster of buildings for living quarters and classroom facilities for the missionaries, a central building to serve the administrative personnel, a lobby and reception area for checking in the missionaries, a large conference room, a dining hall, food preparation and storage facilities, and miscellaneous support areas for such things as a bookstore, laundry, barbershop, and mail service. The plans showed where a second, third and fourth expansion could take place. When the schematics were ready, we met with Neal Maxwell, the Commissioner of Church Education, to acquaint him with the general concept of the proposed project. He said he would call me when a time was set up for us to meet with the Brethren to review with them the schematic plans and the cost estimates of what was involved.

A few days later Elder Maxwell called to say that a meeting had been arranged, and I was to meet him, and we could go together to the meeting. I asked him if it would be all right to bring Fred Schwendiman with me since Fred was a member of our staff responsible for the housing of students and the missionaries. Elder Maxwell said he would let me know, and he called back the next day to say it would be all right for Fred to come with me. Later, Elder Maxwell called to tell me the meeting would be in the Salt Lake Temple in the room where the General Authorities held their regular weekly meeting, and that we should meet him in his office, and the three of us could go together for the meeting in the Temple.

On the appointed day, Fred and I drove to Salt Lake, met Elder Maxwell, and walked over to the Temple where we were invited into the room where the members of the First Presidency and Council of the Twelve were meeting. We were dressed in our street clothes, and they in their Temple Robes. President Joseph Fielding Smith, the President of the Church, had asked President Harold B. Lee, his First Counselor, to conduct the meeting. President Lee welcomed us to the meeting, and explained to all who were present that the reason why we had been invited to meet with them in the Temple was that the decision the Brethren would be called upon to make that day was probably the most important decision they would be called upon to make in their years as authorities of the Church.

He went on to say that in recent months missionaries being called to foreign speaking missions where they were faced with learning a new language, had been receiving advance language training at Brigham Young University, that the numbers being served there had outgrown the available facilities, and a decision now needed to be made about constructing new facilities to accommodate the increasing numbers. He said Brother Maxwell had been asked to take responsibility to work with University representatives to come up with a proposal as to how best to resolve the problem, and turned to Brother Maxwell, inviting him to respond with such comments as he would like to make.

Brother Maxwell said he had met with personnel from the University, and they had come with him to present a proposal requiring the construction of a major project to accommodate the increased numbers of missionaries receiving language training prior to their going to their respective missions. He then explained that schematic plans had been prepared which he asked me to present. I rolled out the schematic plans on the table, and reviewed them, in detail, with those present, and advised them of the preliminary cost estimates. They asked many questions, and discussed, at length, the potential long range benefits that could accrue to the Church from such a program.
President Lee finally said, "We have had our discussion, the time has come for us to decide whether to go ahead with this project, but before we do that I would like a personal comment from each one of you as to your feelings about the proposed project." He turned to President Kimball, who at that time was the President of the Council of the Twelve, and Chairman of the Church Missionary Committee, and asked for his comments. President Kimball said he and members of the Missionary Committee had met and had long discussions about what was being proposed, and that he would like Elder Hinckley, a member of the Missionary Committee to summarize the feelings of the Committee about the proposed project.

Elder Hinckley responded, "Brethren, our Committee has given long consideration about alternative ways to best help the missionaries improve in their performance; it may be there is a better way to deal with what is being proposed here, but if there is, we don't know what it would be, so our Committee is unanimously in favor of the project." When it came Le Grande Richards' turn to speak, his comment was, "Brethren, I am very much in favor of the approach being suggested, but I am always concerned about the costs involved, and whether the Church can afford to do what is being proposed." President Lee spoke up and said, "Le Grande, if this is the right way for us to go, we'll find the money, so you won't need to worry about that." Elder Richards' response was, "President Lee, with that assurance, the project has my full support."

Every General Authority had his turn to speak, and then President Lee asked for their collective vote, which was unanimous in favor of going ahead with the project. Then President Lee spoke words I shall never forget: "Brethren, I would like to make two observations -- One, the decision you have made today will have the effect of making Provo, Utah the Language Capital of the World. Secondly, this is not the end, it's just the beginning."

That was a momentous occasion. My heart thrilled with what had transpired, and with the decision made. It was a glorious moment to experience "The Hand of God" at work with what had taken place.

Those of us at the University immediately went to work. We met with the architects to help them move forward to complete the plans. The project was bid, a contract was awarded, the construction completed, the administrative personnel and employees worked to put everything in readiness, and the missionaries moved in. A decision was made to give training, also, to those missionaries who spoke English and were assigned to English speaking missions, and a longer time for those missionaries receiving training in a new language. Almost immediately, the project was completely filled, authorization was given to proceed with the construction of Phase Two and then later, Phase Three. Not only that but, as of this writing, fifteen additional satellite Mission Training Centers have been opened, and are in operation. President Lee's prophetic words have been fulfilled, and with the growth of the Church taking place, there will be still more to come. Yes, "The Hand of the Lord" is still in evidence in what has taken place, and is continuing to take place. (Ben E. Lewis)
A language training mission (later changed to Missionary Training Center) was established on the Brigham Young University campus in 1961. Facilities for housing, feeding, and teaching missionaries were provided in Knight Mangum Hall, the Social Hall, and in several houses near the campus. The number of missionaries in training at one time increased over the years creating serious overcrowded conditions.

Approval was obtained for construction of new facilities to be located west of the Provo Temple and north of the BYU campus. A committee was appointed to study the Language Training Mission needs and to prepare a Building Program. Members of this committee who worked with Ephraim Hatch in the preparation of this Building Program were:

Fred A. Schwendiman, Chairman, Language Training Mission Building Committee
Terrence L. Hansen, President, Language Training Mission
Derrold Dee Harris, Counselor, Language Training Mission
Allen C. Ostergar, Counselor, Language Training Mission
Clyde Bair, General Services for Business Affairs
Darrel J. Monson, Director, Division of Instructional Services
Wells Cloward, Director, Food Services
Rulon Craven, Administrative Assistant, Business Affairs
Sam F. Brewster, Director, Department of Physical Plant

Three firms of architects combined together to produce plans for this project: Keith Wilcox, Hal Beecher, and John Fetzer. Bids were opened July 2, 1974, and Byron Paulsen Construction Co. was awarded the contract with a completion date of June 30, 1976 (Physical Plant Department Records).

This building complex was to accommodate approximately 1,300 missionaries at one time—including housing, feeding, and teaching. It was expected that this facility along with the mission home in Salt Lake City, which trains missionaries for English speaking areas, will make it possible to maintain a force of 30,000 missionaries in the field (Language Training Mission Building Program Requirements, p.1).
Writing Missionary Training Center building program
Left: Ephraim Hatch, Dee Harris, Clyde Bair and Allen Ostergar

Standing: Keith Wilcox, Hal Beecher, and John Fetzer
Seated: Fred A. Schwendiman, Ben E. Lewis, and Sam F. Brewster

Wells Cloward, Director of BYU Food Services
planned the MTC food preparation facilities

Language Training Mission groundbreaking - 1974
Elder Ezra Taft Benson at controls of earth mover.

Buildings 1974-1978
532
Harold J. Anderson, Asst. BYU PHP Director
Prepared contracts for MTC construction

Boyd Datwyler, BYU Landscape Architect
Made landscape plan for Missionary Training Center

BYU construction personal, left: Darrell Wilson,
Building Inspector; Al Nelson, Asst. Construction
Engineer and Paul Rasmussen, Construction
Engineer

Missionary Training Center Project - Phase I at right,
Phase II under construction at left - September 1976

Buildings 1974-1978
533
Missionary Training Center Phase I - Project 735-74-109 Data
This project consisted of 1 Administration Building, 1 Couples Building,
4 Residence Buildings and 2 Teaching Station Buildings.

Building Program: Ephraim Hatch
Architect: Keith W. Wilcox, Harold Beecher and John Fetzer
Structural Engineer: Ralph L. Wadsworth
Mechanical Engineer: Bridgers & Paxton
Electrical Engineer: Arthur H. Neilson
Date of Bid Opening: 2 July 1974
General Contractor: Paulsen Construction Co.

Contractor's Representative: Byron Paulsen
Owner's Representative: Sam F. Brewster and Fred A. Schwendiman
Final Project Amount: $18,141,675.70
Final Cost per Square Foot: $49.48
Date of Completion: 1 November 1976
**Missionary Training Center Phase II - Project 735-76-120 Data**

This project consisted of 5 Residence Buildings, 3 Teaching Station Buildings and a Couples Building Addition.

<table>
<thead>
<tr>
<th>Building Program:</th>
<th>Ephraim Hatch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architect:</td>
<td>Wilcox, Beecher &amp; Fetzer</td>
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<tr>
<td>Structural Engineer:</td>
<td>Ralph L. Wadsworth</td>
</tr>
<tr>
<td>Mechanical Engineer:</td>
<td>Bridgers &amp; Paxton</td>
</tr>
<tr>
<td>Electrical Engineer:</td>
<td>Arthur H. Neilson</td>
</tr>
<tr>
<td>Date of Bid Opening:</td>
<td>12 May 1976</td>
</tr>
<tr>
<td>General Contractor:</td>
<td>Christiansen Brothers</td>
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</table>

<table>
<thead>
<tr>
<th>Contractor's Representative:</th>
<th>Wally Christiansen</th>
</tr>
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<tbody>
<tr>
<td>Owner's Representative:</td>
<td>Fred A. Schwendiman</td>
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<tr>
<td>Floor Area of Buildings:</td>
<td>287,316 Gross sq. ft.</td>
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<tr>
<td>Final Contract Amount:</td>
<td>$10,943,908.96</td>
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<td>Final Cost per Square Foot:</td>
<td>$38.09</td>
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<tr>
<td>Date of Completion:</td>
<td>31 October 1978</td>
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<tr>
<td>Total Project Cost:</td>
<td>$12,638,503.67</td>
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Buildings 1974-1978

535
Construction well underway on the Missionary Training Center by 1 November 1974 - BYU buildings in background

Byron Paulsen, General Contractor for MTC 1st Phase construction

Wally Christiansen, General Contractor for MTC 2nd Phase construction

Buildings 1974-1978

536
Missionary Training Center (Formerly - Language Training Mission) dedication 27 September 1976

Buildings 1974-1978
537
Language instruction in a small classroom

Buildings 1974-1978
538
Wilford Woodruff Administration Building, Missionary Training Center

Buildings 1974-1978
539
Monte L. Bean Life Science Museum - 1978

A life science museum in an institution of higher learning such as Brigham Young University serves the academic community in a number of ways. It is a repository of biological fact; in a sense it is a biological library. The animal and plant collections represent to the student and scientist, material to be interpreted. Thus, each specimen, when properly catalogued and curated, is filed away much as books in a library. The basic function of a university museum is to dispense information whether it be from the educational displays or from the research collections.

The Brigham Young University Life Science Museum had its origin in the Education Building on the Lower Campus in 1900. A two-year expedition, completed in 1902, to the jungles of Mexico and Central and South America added many specimens to this first museum. A number of excellent collections in various life science fields have been developed through field trips of faculty and students. Several significant acquisitions were received from generous donors in recent years. Brigham Young University had sufficient material to develop a very excellent life science museum, but space for display and proper storage of this educational material was never adequate.

Brother and Sister Monte L. Bean of Seattle, Washington, generously provided the necessary funds for the planning and construction of a research and display building, a cultural center for the biological sciences.

Building Project (7-63118) (735-75-118) Data

<table>
<thead>
<tr>
<th>Building Program:</th>
<th>Ephraim Hatch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architect:</td>
<td>Robert A. Fowler Assoc.</td>
</tr>
<tr>
<td>Structural Engineer:</td>
<td>Reaveley Engineers</td>
</tr>
<tr>
<td>Mechanical Engineer:</td>
<td>Bridgers and Paxton</td>
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<td>Electrical Engineer:</td>
<td>Nielson Engineering Co.</td>
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<td>Floor Area of Building:</td>
<td>56,302 sq. ft.</td>
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<td>Date of Bid Opening</td>
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<td>General Contractor:</td>
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<td>Contractor's Representative:</td>
<td>Alan S. Layton</td>
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<td>Owner's Representative:</td>
<td>Fred A. Schwendiman</td>
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<td>Final Project Amount:</td>
<td>$3,133,135.28</td>
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<td>Final Cost per Sq. Ft.:</td>
<td>$46.61</td>
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<tr>
<td>Date of Completion:</td>
<td>1 March 1978</td>
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</table>
Architect’s rendering of the Monte L. Bean Life Science Museum

Buildings 1974-1978
541
Approval of plans for the Life Science Museum - 9 May 1976
Left to right: Fred A. Schwendiman, President Dallin H. Oaks, Monte L. Bean and Birdie Bean

Buildings 1974-1978
542
Groundbreaking for the Bean Life Science Museum - 21 July 1976

Buildings 1974-1978

543
Construction well under way by September 1976 for the Monte L. Bean Life Science Museum on a beautiful site north of the campus.
After the ribbon cutting, the public was admitted to the Monte L. Bean Life Science Museum - 28 March 1978

Buildings 1974-1978

545
Dr. Stephen L. Wood

Dr. Wilmer Tanner

The Monte L. Bean Room

Botanical research collection in metal cabinets

Buildings 1974-1978

546
Mount Vision Transmitter Building - 1978

Both the University of Utah and Brigham Young University own and operate Public Service radio and television stations. For many years transmitters were housed in a structure owned by a commercial broadcasting company located on Mt. Vision, southwest of Salt Lake City, near the Bingham Copper Mine. The need for more space prompted a decision by the two universities to construct a new building near their existing antennas and continue to share facilities on a cost sharing basis.

Transmitters and antenna for several radio and television stations are located on top of Mt. Vision

Buildings 1974-1978

547
The road to Mt. Vision is steep, with many switchbacks.
Precast concrete wall and roof components were transported from Salt Lake City to the building site on Mt. Vision.
The exterior nearing completion - 26 October 1978

Transmitter installations - 10 October 1978

Transmitter Building interior - 10 October 1978

Transmitter maintenance staff living quarters

Buildings 1974-1978
550
Buildings 1974-1978

Ephraim Hatch and Ralph Silver of BYU, shown here, and Milton Davis of U. of U., prepared Building Program.

BYU Planning and Construction personnel
Left: Paul Rasmussen, Ed Cozzens, Al Nelson and Norman Faldmo

Warren Jones and BYU Planning Division Staff prepared the plans and specifications for this project.

Ribbon Cutting - Cedric J. Davern of Univ. of Utah and BYU President Dallin H. Oaks

551
Utilities 1974-1978

1974
Ext. of CW to ELWC, MCKB and JSB
Air Conditioning of SFLC
Ext. of CW to HFAC, ASB, JKHB 1650 North Storm
Sewer (250 W to 900 E)
Lee Library, Relocation of Utilities
Remodel heat/AC UPB
Sewer line to houses on 1430 North.
Central chilled water extension to Joseph Smith Building, David O. McKay Building, and Wilkinson Center.
Relocation of utility lines for Library Addition.

1975
800 North Storm Sewer
Site Work (Utilities)
Central chilled water extension to Administration Building, Jesse Knight Building, and Harris Fine Arts Center.

1976
Installation of sewer meters as a measure to save utility dollars, sewer meters were installed in the major sewer lines leaving campus to allow sewage to be metered rather than being billed based upon the average water usage in the winter months.
Remodel heat/AC in Existing Library
Extension of Utilities to Museum (part 1)

1977
Ext. of 14" CW to Bldg. "W" of Deseret Towers
Extension of Utilities to Museum (part II)

1978
Expansion loops were added in the tunnel high temperature water piping replacing expansion joints to reduce the risk of failure and injury.
Convert Absorption Chiller to HTW
Provide CW and Culinary water to KT Grnding Systems Campus HFAC, HRCB, Page School
Extension of Utilities to Comprehensive Clinics Bldg.
Utilities to Classroom Office Bldg. (electrical)
High Temp. Water Exp. Loops (west zone Phase 1)
Expansion loops in main tunnel system phase II
Replacement Stoker & Continuous Grate
Sewer and Sanitary Sewer to Clrm Office Bldg.
High Temp. Water Expansion
HTW Loops - Phase II
Computers on Campus

Brigham Young University Computer Services started in 1958 as the Computer Research Center in the Maeser Building, then moved at various times to the Joseph F. Smith Family Living Center, the Jesse Knight Building, the Smoot Administration Building (in 1964), and to its present location in the James E. Talmage Mathematics and Computer Science building in 1971, each time receiving larger and more sophisticated equipment. It has grown to be one of the largest and most versatile centers in the western United States.

“The addition in 1973 was the big IBM360/365 computer with forty terminals throughout campus. In all there were more than twenty computers on campus in 1974, in addition to the big central center, including a Digital Equipment Corporation computer in the Engineering Science and Technology Building with fifty terminals throughout campus... Forty-two departments on campus include some use of the computers in their curricula” (BYU 1000 Views of 100 years, 1975, p.210).

Computers in the Physical Facilities Division

The 1974 photograph on the left is of Ed Haines, with an assistant at a computer terminal that is connected with a mainframe computer in the Smoot Building.

See Appendix H for a history of computers in the Physical Facilities Division.

C. Edwin Dean, left, a technician and Dr. Gary Carlson
Smoot Administration Building - 1967