A REPORT ON THE DEVELOPMENT OF AN INSTRUCTIONAL UNIT ON THE NORSE PEOPLE AND THEIR SETTLEMENT AT L'ANSE AUX MEADOWS

CENTER FOR NEWFOUNDLAND STUDIES

TOTAL OF 10 PAGES ONLY MAY BE XEROXED

WITHOUT AUTHOR'S PERMISSION

ANN CODY
A REPORT ON THE DEVELOPMENT OF AN INSTRUCTIONAL UNIT
ON THE NORSE PEOPLE AND THEIR SETTLEMENT
AT L'ANSE AUX MEADOWS

BY

ANN CODY

A report submitted to the School of Graduate Studies
in partial fulfillment of the requirements
for the degree of
Master of Education

Department of Education

Memorial University of Newfoundland
August 1983

St. John's Newfoundland
Preface

It should be noted that the original research for this instructional unit was completed in 1979. Since the writing of this report, the United Nations (1983) has declared the site at L'Anse aux Meadows, to be a First World Heritage Site.
Acknowledgements

I wish to express my thanks to the members of my supervisory committee: Dr. Garfield Pizzard, Dr. George Koski, and Dr. Maurice Brewster for their assistance and encouragement.

I also thank the following people for their assistance: Miss D. J. Jerkic, Department of Anthropology; Mr. T. Manning, Department of Indian and Northern Affairs; Dr. D. Boehnker, Mr. W. Griffin; Dr. L. Mendoza; and Mr. D. Michaud, Department of Education.

Special thanks to Miss Carmel Doyle and Mr. Michael Ouel for their assistance in the area of music, and to my brother Francis, who spent countless hours working on the sound arrangement.

To my friends who supported and encouraged me, I extend my appreciation.

To my father's love of knowledge and my mother's encouragement, I owe all my academic endeavours.
Abstract

With the pressure on educational institutions to become more effective and more relevant to the demands of society, there is a need to present content in an organized and concise manner using such techniques as task analysis, behavioural objectives and the gamut of available technology in an attempt to maximize student learning.

The purpose of this project has been to develop an instructional unit on the Norse People and their settlement at L'Anse aux Meadows.

The instructional unit consists of:
1. A slide tape on the Norse settlement at L'Anse aux Meadows;
2. Overhead transparencies dealing with explorations leading to the establishment of a settlement, and with the physical features of the settlement;
3. A teacher handbook containing a set of instructions to be followed in the application of the instructional unit along with lists of objectives to be given to the students, and a test designed to meet the needs of this project;
4. A student handbook containing information on the early explorations of the Norse People.

Following the development of the instructional unit it was tested and found acceptable.
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I: INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>1</td>
</tr>
<tr>
<td>Scope</td>
<td>11</td>
</tr>
<tr>
<td>Organization of the Report</td>
<td>2</td>
</tr>
<tr>
<td>II: NEEDS ASSESSMENT</td>
<td>3</td>
</tr>
<tr>
<td>Statement of Needs</td>
<td>5</td>
</tr>
<tr>
<td>Alternative Solutions</td>
<td>6</td>
</tr>
<tr>
<td>Survey of Available Materials</td>
<td>6</td>
</tr>
<tr>
<td>Outline of Developmental Process</td>
<td>8</td>
</tr>
<tr>
<td>III: LEARNER &amp; CONTEXT ANALYSIS</td>
<td>11</td>
</tr>
<tr>
<td>Learner Analysis</td>
<td>11</td>
</tr>
<tr>
<td>Context Analysis</td>
<td>12</td>
</tr>
<tr>
<td>IV: TASK ANALYSIS</td>
<td>14</td>
</tr>
<tr>
<td>Specification of Instructional Objectives</td>
<td>14</td>
</tr>
<tr>
<td>General Objectives</td>
<td>14</td>
</tr>
<tr>
<td>Specific Objectives</td>
<td>15</td>
</tr>
<tr>
<td>V: CHOICE OF MEDIA AND INSTRUCTIONAL STRATEGY</td>
<td>21</td>
</tr>
<tr>
<td>Background</td>
<td>21</td>
</tr>
<tr>
<td>Availability of Media</td>
<td>21</td>
</tr>
<tr>
<td>Cost Considerations</td>
<td>21</td>
</tr>
<tr>
<td>Selection of Media</td>
<td>21</td>
</tr>
<tr>
<td>Instructional Strategy</td>
<td>21</td>
</tr>
</tbody>
</table>
VI. DEVELOPMENT PROCEDURES AND INFORMAL/EVALUATIONS

Initial Production Slide-Tape Presentation
Initial Production: Overhead Transparencies
Initial Production: Student Handbook
Informal Testing

VII. FORMAL EVALUATION

Instrumentation
Procedure
Data Analysis
Conclusion

VIII. REVISIONS, CONCLUSIONS AND RECOMMENDATIONS

Revisions
Conclusions
Recommendations

BIBLIOGRAPHY

APPENDIX A: Pre-test/Post-test
APPENDIX B: Teacher evaluation form
APPENDIX C: Slide/tape narration
APPENDIX D: Student Handbook
APPENDIX E: Teacher Handbook
APPENDIX F: Slide Tape Presentation: "Norse Site at L'Anse aux Meadows"
TABLES

Table 1  Objectives matched with the items on the pre-test and the post-test form: 26

Table 2  Teacher Evaluation 29

Table 3  Comparison of pre-test and post-test 29

Table 4  Percentage of students with percentage of items correct in the post-test 30

Table 5  An item analysis of the scores between the pre-test and the post-test 31
INTRODUCTION

The discovery of the Norse settlement at L'Anse aux Meadows has resulted in one of the major archaeological finds of the twentieth century. The Norse sagas place the discovery and occupation of Vinland at the beginning of the eleventh century, and radiocarbon tests date the ruins at L'Anse aux Meadows in approximately the same period. The L'Anse aux Meadows site may not be Vinland, but there is little doubt that the Norse men and women who built and inhabited these houses were among the first Europeans to have lived in North America.

Purpose

It is the purpose of this instructional unit to:

1. Provide information on the Norse People as early explorers of Newfoundland;

2. Acquaint students with the Norse settlement at L'Anse aux Meadows.

Scope

The major part of this project consists of an instructional unit which includes:

1. A slide tape on the Norse settlement at L'Anse aux Meadows;

2. Overhead transparencies dealing with explorations leading to the establishment of a settlement and with the physical features of the settlement;

3. A teacher handbook containing a set of instructions to be followed in the application of the instructional unit, along with lists of objectives to be given to the students,
and a test designed to meet the needs of this project;

4. A student handbook containing information on the early explorations of the Norse People.

Organization of the Report

This report is presented in eight chapters. Chapter I introduces the project, identifies the purpose, and gives the scope. Chapter II presents a detailed analysis of the needs of the project. Chapter III sets forth the learner analysis. Chapter IV presents the task analysis. Chapter V reviews the rationale for the choice of media. Chapter VI presents the developmental procedures and informal evaluation. Chapter VII reports the results of the field testing and formal evaluation of the instructional unit, and Chapter VIII presents the conclusions and recommendations.

The Appendix includes the tests and evaluation forms used in the field testing, the teacher's guide, and student handbook. The audiovisual section of this instructional unit is included under separate cover.
NEEDS ASSESSMENT

"A well-informed citizen, it has been argued, needs to know the background of his own cultural heritage, its myths and heroes in order to make effective decisions about the present and future."

(Carolimek, 1974).

The study of local history exposes a person to the struggles and the achievements of his people; it passes on a legacy with which a person can identify. A sense of one's past serves as a buffer against detachment, and thereby enables an individual to establish a cultural identity.

Social participation, thinking, valuing and knowledge are essential components of a social studies program. It follows that educators must address themselves to the problem of identifying ways to encourage students to develop the knowledge, skills and attitudes necessary for effective participation in society.

In Newfoundland and Labrador, there has been an increased emphasis on including local materials in the curriculum. This practice can be seen in the English program which has introduced books written about subjects of particular relevance to Newfoundland society such as Death on the Ice by Brown (1974) and White Eskimo by Horwood (1973). The English program has been extended to include consideration of the work of such Newfoundland artists as G. Pratt and D. Blackwood, as well as a variety of Newfoundland writers such as Al Pitman, Tom Moore and Ray Guy.

The Grade Nine Canadian History course is based on the geography of Canada and presents an historical perspective of Canada since
Confederation. This course was introduced to the Newfoundland schools during the 1976-77 school year and relies a great deal on the availability of resource materials (old newspapers, letters, photographs, books, magazines, journals, audio-tapes, slides, filmstrips, films, and personal interviews with knowledgeable persons from the community). This course has been designed to give emphasis to the Atlantic region of Canada, particularly Newfoundland.

The Newfoundland Culture course introduced in the secondary schools during the 1983-84 school year; includes a variety of activities which involve students in the real world of their communities.

This increased emphasis on topics specifically relating to Newfoundland can be clearly seen throughout the Grade Five Social Studies course. This course which deals specifically with the history and the geography of Newfoundland and Labrador relies heavily on the utilization of a variety of instructional resources and teaching strategies.

The study of local history requires a considerable amount of appropriate instructional resources; no one textbook can be sufficient.

"Social studies education cannot be successful without the conditions necessary for good instruction. One of the conditions is a supply of adequate resources." (Jarolimek, 1974).

The need for appropriate instructional materials relating to local history and geography has been clearly established. The Instructional Materials Centre of the Newfoundland Department of Education has responded to the need for adequate resources by establishing a production facility to produce local resource materials which are difficult
to obtain from commercial publishers.

The Learning Resources Division of the Faculty of Education, Memorial University of Newfoundland responded to the need of teachers by establishing a Clearing House, which is as the name suggests, a clearing house of locally produced materials.

A committee of the Newfoundland Library Association has produced a jackdaw (a collection of copies of historical documents) entitled, *Newfoundland and Confederation*, under the editorship of K. Power, (1974). This production was the direct result of what the Newfoundland Public Libraries Board described as a rapidly rising demand by students and teachers all across the province for Newfoundland materials.

The Provincial Education Media Council, in response to the demands of librarians and teachers, has set up a committee to review existing Newfoundland materials. This on-going review service has been made available to schools throughout Newfoundland and acts in an advisory capacity for the purchasing of Newfoundland curriculum materials.

**Statement of Needs**

One of the main topics dealt with in the Grade Five Social Studies program is the early explorers of Newfoundland. The Vikings or the Norse People, play a large role in the early explorations of Newfoundland.

In an attempt to determine the need for materials on the early explorers of Newfoundland, the developer conducted a survey of Grade Five Social Studies teachers.

Thirty Grade Five teachers on the Avalon Peninsula were interviewed by the developer. All stated that there was a great need for...
an elaboration of the existing information in the textbook and that supplementary materials in this area would enable students to become better acquainted with and more knowledgeable about the early explorers and their role in the historical development of Newfoundland.

Ninety-five percent of the teachers interviewed stated that they had difficulty in obtaining resource material on the Norse people and their site at L'Anse aux Meadows. These teachers also stated that they would use such resource material within their programs if it were available.

Alternative Solutions

As indicated above, there is a need for resource material on the Norse as early explorers of Newfoundland, and on their site at L'Anse aux Meadows.

The developer was faced with three possible solutions with regard to meeting the need of teachers in obtaining instructional materials on the Norse in Newfoundland. They were:

1. To obtain materials already available;
2. To adapt existing materials;
3. To develop and produce resource material.

To determine whether or not there were materials that were satisfactory in their existing condition or that could be modified, a survey of existing materials was conducted by the developer.

Survey of Available Material

Newfoundland Archives. The Newfoundland Archives did not contain any materials concerning the Norse site at L'Anse aux Meadows. All primary documents concerning the site were in the National Museum
in Ottawa, and the Newfoundland Archives was negotiating to obtain complete copies of the Ottawa collection of archaeological reports and documents.

Department of Indian and Northern Affairs (Canada). At the time of writing (1978) the Department of Indian and Northern Affairs had no information to offer to the general public, apart from a tourist brochure on the layout of the site and a few minor historical facts concerning the site. It did, however, have a few slides taken of the early excavations of the site which it allowed to be used for the purpose of this project.

Canadian Broadcasting Corporation. A brief documentary on the Norse site at L'Anse aux Meadows was produced by Here and Now, in 1979, a public affairs program of the Canadian Broadcasting Corporation. This program was available to the schools from the C.B.C. The program required the use of video equipment which was not commonly available in Newfoundland schools.

Memorial University of Newfoundland. No information was available from the Department of Anthropology at Memorial University of Newfoundland, due to the fact that none of the archaeologists at the University had done any field work on the site.

Doctor Helge Ingstad. Doctor Ingstad is a Norwegian explorer and adventurer who discovered the Norse site at L'Anse aux Meadows. Doctor Ingstad and his wife, Anne Stine (an archaeologist), lead six archaeological excavations on the site at L'Anse aux Meadows between 1960–1967. The Canadian Government stopped Doctor Ingstad from taking artifacts, found at the site, out of the country. All
documents concerning the site were confiscated until further research could be done.

Three letters were sent to Doctor Ingstad asking for information concerning his work at L'Anse aux Meadows, to which no reply was received.

Books Available. A large variety of books on the Vikings and Norse People, their customs, religious beliefs, travels, etc. was obtained. These books fell into two categories:

1. Adult-oriented material which was too technical in content and in which the reading level was not appropriate;
2. Books suitable for elementary students but did not deal specifically with the Norse site at L'Anse aux Meadows.

A list of recommended books for both the teacher and the student is included in the instructional unit.

Based on the survey of available materials it was determined:

1. That existing materials were not appropriate;
2. That existing materials were not appropriate to be adapted.

It was decided that the development and production of resource material was necessary to meet the established need. A developmental process, based on a Taba model, was undertaken in the production of resource material on the Norse site at L'Anse aux Meadows.

Outline of Development Process

Taba (1962) defines education as a planned process which seeks to change the behavior of students.

An instructional model, based on Taba (1962) was used in the development of this project on the Norse. The model is as follows:
Based upon the needs, and within the social and cultural context, the objectives are formulated, and on this basis the selection and organization of content and learning experiences are made. It should be noted that the seven steps in the instructional development model, as presented by Taba, are dependent upon and must be consistent with the objectives. Although evaluation is the last step listed, it does not mean that the process stops here since instructional development is a continuous process. The seven steps must be interconnected.

The Diagnosis of Needs, has been described in this chapter. The remaining chapters of this report will describe each step of the developmental process.
III

LEARNER AND CONTEXT ANALYSIS

Learner Analysis

This instructional unit on the Norse has been basically designed to be used with heterogeneous groups of students within a Newfoundland cultural setting. The unit was primarily designed taking the following characteristics of students into consideration.

Age and Grade. The instructional unit on the Norse and their settlement at L'Anse aux Meadows was designed to meet the needs of Grade Five Social Studies students within the Newfoundland educational system. The chronological age of these students ranges from nine to eleven years of age.

Pre-requisite Knowledge. The design of the instructional unit assumes no previous knowledge or expertise of the Norse People or their site at L'Anse aux Meadows. Students in Newfoundland, prior to Grade Five, receive little or no exposure through formal education to the history of the Norse as early explorers of Newfoundland and to the Norse site at L'Anse aux Meadows.

Secondary Uses of the Unit. Although the instructional unit was primarily designed to be used within the Newfoundland Social Studies curriculum, it has been used in a variety of ways by various groups. The instructional unit has been used as:

1. An information source for visitors to Newfoundland;
2. A source of local history for the communities of St. Anthony and St. Julian's;
3. An instructional resource for various curriculum areas outside the Grade Five Social Studies program — Grade Seven, Eight and Nine Social Studies.
In addition, a number of requests have been received by the developer from teachers in Nova Scotia, Boston, and Vancouver. Requests have also been received from local communities of Harbour Breton, Breit's Cove and Conche.

**Context Analysis**

To establish the conditions and constraints under which the mediated unit would be used, a context analysis was undertaken.

**Target.** The unit was designed primarily for Grade Five Social Studies students.

**Instructor.** The unit may be used by any course instructor for Grade Five Social Studies.

**Language.** The students possess a vocabulary and language typical of Grade Five students. They prefer simple conversational English with concrete and familiar examples and a minimum of technical jargon.

**Delivery System.** The unit was designed essentially for a small or large group use, although individual use should not be overlooked.

**Integration into a Total Program.** The unit was designed so that each media form is independent of the other in order to permit flexible use in a variety of programs dealing with the topic.

**Utilization Facilities.** The unit may be used in resource centres, classrooms, study carrels and student home facilities.

**Equipment.** The unit requires the use of a slide projector, an overhead projector and a cassette tape recorder.

**Tool Skills.** Students may require some training in the manipulative skills necessary for the utilization of various equipment needed for the presentation of the unit.
Scheduling Constraints. The presentation of the materials contained in the instructional unit would require at least two forty-minute periods. This, however, would not allow for questions, discussions and related activities. Therefore a minimum of three such periods is to be recommended.
IV.

TASK ANALYSIS

Specification of Instructional Objectives

Objectives lie at the very heart of the planning process. Mager (1962) states three important reasons for carefully delineating objectives:

1. Evaluation of the program is impossible unless clearly stated objectives exist upon which to base evaluation;
2. Testing of the student must measure performance in terms of the goals of the program if the results are to be meaningful;
3. Students are able to evaluate their own progress if they can match their performance with stated objectives.

General Objectives

General objectives have broad characteristics in which the time span is long rather than short-term. General objectives serve as a rationale to, rather than a more detailed exploration of, the desired outcomes.

The General Objectives of this instructional unit are as follows:

1. To help students acquire an appreciation of the cultural heritage of the Norse people.
2. To give students an appreciation of the folklore traditions associated with the explorations leading to the discovery of the Norse site at L’Anse aux Meadows.
3. To provide students with a knowledge of the Norse site in Newfoundland.
4. To help students understand the significance of the geographical setting of the Norse site at L’Anse aux Meadows.
5. To inform students of the importance of the Norse Site at L'Anse aux Meadows to the early history of North America.
6. To develop in students an awareness of and an appreciation for Newfoundland history.
7. To introduce students to the discipline of Archaeology and its methodologies.

Specific Objectives

Specific objectives are tactical in nature. They are highly explicit and operational in form, as well as time-bound and quantifiable. Specific objectives attempt to describe, in the clearest terms possible, exactly what activity learners will be able to do to demonstrate their mastery.

The specific objectives of this project are as follows:

The student should be able

1. To locate, on a given map, the Norse site of L'Anse aux Meadows.
2. To trace, on a map, the route taken by the Norse leading from Iceland to Newfoundland.
3. To label, on a map, the locations of Greenland, Iceland, Labrador, Strait of Belle Isle, and Newfoundland.
4. To write the meanings of the following words:
   (a) Vinland
   (b) Markland
   (c) Helluland
   (d) Greenland
   (e) Althing
   (f) Skraelings
   (g) Archaeology
   (h) Saga
5. Given a list of statements on the Norse explorations to tell
which are true and which are false.

6. To match the following group of names with the description of, or the activity of, the person involved:

(a) Erik the Red  (d) Leif the Lucky
(b) Thjodhild  (e) Thorvald
(c) Bjarni  (f) Ingolf

7. To draw a picture of a Viking ship including the single striped sail, the oars and the shields at the sides.

8. Given a list of statements on the Norse site at L'Anse aux Meadows, to complete those statements by filling in the blanks.
CHOICE OF MEDIA AND INSTRUCTIONAL STRATEGY BACKGROUND

In developing a prototype instructional unit, consideration had to be given to the media through which the information was to be presented. The format of the instructional materials would have to be flexible in use and styled so that they could readily be used by teachers and students.

Availability of Media

Through conversations with individuals at the Instructional Materials Centre of the Newfoundland Department of Education and similar conversations with sales representatives of Audio-Visual hardware as well as through the personal experience of the developer, it was established that most Newfoundland schools appear to have access to the following audio-visual equipment:

1. 16mm projectors
2. overhead projectors
3. record players
4. cassette tape recorders
5. slide projectors
6. filmstrip projectors

Some of the schools throughout the province are purchasing video equipment and various recording and photographic equipment. However, in the opinion of the developer, the latter types of equipment are not sufficiently available to be considered as the media through which to present the information on the Norse.

Cost Considerations

Having considered the type of audio-visual equipment readily
available to teachers and students, it was necessary to consider the
cost of producing instructional materials in the format suited to
the medium. Sixteen millimeter film would be a very expensive under-
taking in terms of both the initial production and the duplication
of the product on the scale required if the materials were to be
readily available to teachers and students. A record would not be a
feasible format because of the lack of the production facilities
available to the developer and the expense which would be entailed
in having a record made commercially.

Selection of Media

Stolovitch (1975) found in examining media attributes that the
combination of print, audio tape, slides and transparencies possess
all desirable attributes except motion and three dimensionality.
This particular media combination has the major advantage of rela-
tively low cost and simple production. In addition, inexpensive
hardware is available which can be used for individual study or for
small or large group presentations. It is also possible with mini-
mal additional expense to convert slides into a filmstrip format.

These considerations, coupled with the production facilities and
expertise available to the developer of this project, indicated
that the media combination of print, audio tape, slides and trans-
parencies was the optimal media vehicle for the instructional unit
on the Viking site at L'Anse Aux Meadows.

Instructional Strategy

The way in which the material is presented is as important as the
content of the instructional unit.
The following is a list of procedures to be followed by teachers using the instructional materials on L'Anse aux Meadows:

1. Read the teacher's instructions for use and timing of unit materials;
2. Provide the students with copies of the student objectives;
3. Provide students with copies of the student handbook and provide time for them to read it;
4. Have a short discussion on the handbook, pointing out information required by the objectives;
5. Use transparencies for introducing the site at L'Anse aux Meadows;
6. Show slide tape;
7. Have a question and answer period;
8. Have students complete the test provided;
9. Optional related activities.
VI
DEVELOPMENT PROCEDURES AND INFORMAL EVALUATIONS

Following the survey of materials the developer visited the site at L'Anse aux Meadows to familiarize herself with the surroundings. Having done this, the production aspect of the project was undertaken.

Initial Production: Slide-tape Presentation

Storyboard. The first step was the preparation of a storyboard which consisted of making a rough sketch on index cards of the proposed content of the slide with the accompanying script.

Before any slides were taken the storyboard was discussed with the supervisory committee and some minor changes were made.

Script. In preparing the script for the audio tape, a group of Grade Five students was used. The students provided valuable feedback concerning the interest level, language, and structure of the narration as well as their ability to comprehend its content.

The script was evaluated by experts in the fields of Archaeology, Audio Visual Education, and Elementary Social Studies. The subject matter experts examined the content for accuracy and authenticity and production experts considered its suitability for audio reproduction. A readability formula by Fry (1972) was applied to determine the suitability of the language.

This process of evaluation, editing, and rewriting resulted in a prototype script ready for recording.

Music. The developer decided that the addition of music at various stages of the sound track would help establish the appropriate mood, a mood which would create a feeling of unification with
the past.

Obtaining suitable music proved to be difficult. A music specialist was consulted and a variety of musical combinations was explored in an attempt to create the appropriate mood.

The musician, in consultation with the developer and the music specialist, created an original composition, consisting of a combination of flute and guitar, to accompany the slides and narration.

Audio Tape. The original sound track was prepared at the Centre for Audio Visual Education, Memorial University of Newfoundland. This sound track was dubbed onto a cassette and several copies were made for distribution and field testing.

Slides. The slides of the Viking site at L'Anse aux Meadows were obtained from three sources:

1. Slides were taken at the Viking site by the developer. A professional photographer was consulted as to the nature and composition of the slides and careful consideration was given to the climatic conditions prevalent to the Northern Peninsula of Newfoundland.

2. Slides were taken from graphics produced by the developer. A number of slides consisting of graphics were considered necessary for the content of the slide presentation. A graphic artist was consulted as to the composition, design, layout, color scheme, and materials needed in the production of the graphics. As the graphics were being produced, additional consultation was provided on the overall technique and effectiveness of the visual presentation.
3. Slides were donated by the Department of Indian and Northern Affairs. In the opinion of the developer, the slides were not considered to be of the best technical quality. However, as the information on these slides was not available from other sources and was of critical value to the slide presentation, the slides were included in the unit.

Initial Production: Overhead Transparencies

A set of six colour diazo transparencies were produced by the developer consisting of:

1. A map of Newfoundland showing the location of the Norse site at L'Anse aux Meadows;
2. a map of the Norse site illustrating the location of various formations in relation to one another;
3. a map showing the route of the Viking explorations leading the Norse settlement at L'Anse aux Meadows;
4. an artist's interpretation of the Norse houses that once stood at L'Anse aux Meadows;
5. a drawing of a bronze pin found at the site by archaeologists;
6. a drawing of a spindle-whorl found at the site by archaeologists.

These transparencies were produced in consultation with a graphic artist and were approved for content and technical suitability by specialists in Archaeology, Audio Visual Education, and Elementary Social Studies.

Initial Production: Student Handbook

The student handbook entitled "The Vikings" consists of background
information concerning the migration and exploitation patterns, the type of government, the form of religious beliefs and the social customs of the Norse People.

In preparing the handbook, specialists in various fields were consulted. For content, accuracy, readability, and comprehension, experts in the fields of Archaeology, Elementary Social Studies, Reading and Instructional Development were consulted.

A graphic artist provided information as to the lay-out and design of the material and assisted in the preliminary preparations necessary for the printing of the handbook.

Informal Testing

Informal evaluation, as the name implies, is undertaken during the developmental process, not when the process is thought to be completed. The results of this evaluation point to areas of remediation so that revisions and improvements can be made to the instructional unit to make it more pertinent to the needs of the intended learner.

The students and teachers of two Grade Five Social Studies classes participated in the piloting of materials. As this project is intended for such groups, the developer considered these groups representative of the target population. The materials were used during two forty-minute class periods.

The aim at this stage was not to see how well the students mastered the material, but to identify those parts they found difficult, irrelevant, or confusing. The students and teachers were questioned informally about details of the materials - the slide tape presentation, the overhead transparencies, and the booklet.
Based on these informal reactions by students and teachers, revisions were made in some of the materials, especially in the slide-tape presentation where changes were made in the sound track and in the sequence in which the slides were to be presented.
VII
FORMAL EVALUATION

The purpose or intent of the formal evaluation phase of the instructional development process is to provide some empirical evidence of the instructional effectiveness of the instructional unit through measurement and quantification of learner behaviour. Formal evaluation has as its primary goal the grading or the certification of students, that is, a judgment of the effectiveness of the materials as well as of the teacher.

Instrumentation

The following instruments were used in the formal evaluation phase of the developmental project.

Teacher Evaluation Form. A teacher evaluation form was used to provide feedback on the quality and suitability of the materials from the teacher's point of view. The evaluation form used was developed by a resource specialist to meet the needs of the District Resource Centre at the Avalon North Integrated School Board.

Pre-Test/Post Test Form. The pre-test/post-test was designed to test the objectives. In designing the test, care was taken to have the items on the pre-test/post-test match the objectives, that is, each objective was tested by at least one item. (See Table 1).

Both the comprehension examination (See Appendix A) and the objectives were given to the following for appraisal of content: (a) Specialists in Instructional Development; (b) Specialists in Elementary Social Studies; (c) teachers of Grade Five Social Studies. It was agreed by all that the examination was a satisfactory indicator of the knowledge stipulated in the objectives.
TABLE 1

OBJECTIVES MATCHED WITH THE ITEMS
ON THE PRE-TEST AND THE POST-TEST FORM

<table>
<thead>
<tr>
<th>Objective #</th>
<th>Pre-test and Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Section</td>
</tr>
<tr>
<td>1</td>
<td>V</td>
</tr>
<tr>
<td>2</td>
<td>V</td>
</tr>
<tr>
<td>3</td>
<td>V</td>
</tr>
<tr>
<td>4</td>
<td>III</td>
</tr>
<tr>
<td>5</td>
<td>I</td>
</tr>
<tr>
<td>6</td>
<td>II</td>
</tr>
<tr>
<td>7</td>
<td>IV</td>
</tr>
<tr>
<td>8</td>
<td>VI</td>
</tr>
</tbody>
</table>

To further test its suitability in such dimensions as vocabulary and clarity of sentence structure the test was piloted with six Grade Five students two weeks prior to the field testing of the project. The students found no difficulty in understanding the examination.

Procedure

Two Grade Five classes in the Grand Falls area participated in the field testing of the developmental project on the Norse People and their site at L'Anse aux Meadows, Newfoundland.
Teacher Evaluation - Apart from the two Grade Five teachers who participated in the field testing of the project, twenty-two teachers were given the unit for previewing. An evaluation form (See Appendix B) was provided which enabled the teachers to provide feedback on the quality of the instructional materials and their suitability to the Grade Five Social Studies curriculum.

Classroom Presentation - The instructional materials were piloted in two Grade Five classrooms. Intact, heterogeneous grouping was used. In the judgment of the teachers, the students met the description of learners as presented in the learner analysis.

The teachers were provided with a set of instructions outlining the procedure to be followed in the piloting of the materials. The procedure was as follows:

1. Read instructions;
2. Give out copies of the pre-test and have students complete the test;
3. Provide students with a copy of the student behavioural objectives;
4. Provide students with a copy of the student handbook and provide time for them to read it;
5. Have a short discussion on the handbook, pointing out information required by the objectives;
6. Use transparencies for introducing L'Anse aux Meadows;
7. Show slide-tape;
8. Have a question and answer period.

After completion of the unit of study, the post-test was adminis-
tered, and the results of both tests were tabulated.

**Data Analysis**

**Teacher Evaluation** - The questionnaire used in the teacher evaluation provided for responses of either "yes" or "no" to 11 questions concerning the teachers' reactions to the materials. The frequencies of positive and negative responses were calculated and are shown in Table 2.

The results indicate that the general reaction of the teachers was positive.

**Pre-Test/Post-Test** - Both the pre-test and post-test were identical in format and content. The pre-test was administered to the students before exposure to the instructional materials, and to the best knowledge of the developer, teachers followed the stated instructions in piloting the materials.

Several types of analysis were conducted on the data generated by the pre-test/post-test:

1. **Comparison of means**;
2. Percentage of students with percentage of correct items;
3. Item analysis.

**Comparison of Means** - The mean scores on the pre-test/post-test were compared and the significance of the difference was tested by a "t" score for related means. On the pre-test, the mean score was 10.3 and the standard deviation was 3.4. On the post-test, the mean was 39 and the standard deviation was 2.8. As shown in Table 3, the difference in the overall scores was significant at p < .001.
### Table 2
**Teacher Evaluation**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUESTION</th>
<th># of Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>1.</td>
<td>Is the content accurate and up-to-date?</td>
<td>22</td>
</tr>
<tr>
<td>2.</td>
<td>Is the material logically arranged?</td>
<td>22</td>
</tr>
<tr>
<td>3.</td>
<td>Is the material related to the curriculum?</td>
<td>22</td>
</tr>
<tr>
<td>4.</td>
<td>Is the sound clear, appropriate and understandable?</td>
<td>22</td>
</tr>
<tr>
<td>5.</td>
<td>Is lettering and/or captions clear and discernible?</td>
<td>18</td>
</tr>
<tr>
<td>6.</td>
<td>Are visuals of good quality?</td>
<td>20</td>
</tr>
<tr>
<td>7.</td>
<td>Are visuals appropriate to the topic?</td>
<td>22</td>
</tr>
<tr>
<td>8.</td>
<td>Will use of the material arouse and maintain interest?</td>
<td>22</td>
</tr>
<tr>
<td>9.</td>
<td>Are concepts and vocabulary suited to grade level?</td>
<td>22</td>
</tr>
<tr>
<td>10.</td>
<td>Is the teacher's guide appropriate?</td>
<td>22</td>
</tr>
</tbody>
</table>

### Table 3
**Comparison of Pre-Test and Post-Test**

<table>
<thead>
<tr>
<th>Test</th>
<th>N</th>
<th>M</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test</td>
<td>52</td>
<td>10.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Post-Test</td>
<td>52</td>
<td>39.0</td>
<td>2.8</td>
</tr>
</tbody>
</table>

df = 51; t = 52.336; p < .001
Percentage of Students with Percentage of Correct Items - One indication of success of learning is the percentage of students who obtained various percentages of correct items. As shown in Table 4, over 93% of the students obtained 80% of the items correct on the post-test. All of the students evaluated received 75% or more of the items correct on the post-test. As the post-test was determined acceptable through evaluation procedures, it appears safe to assume that the learners established an acceptable level of performance.

TABLE 4

PERCENTAGE OF STUDENTS WITH PERCENTAGE OF ITEMS CORRECT IN THE POST-TEST

<table>
<thead>
<tr>
<th>% of Students</th>
<th>% Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.54</td>
<td>100</td>
</tr>
<tr>
<td>21.16</td>
<td>95 or more</td>
</tr>
<tr>
<td>50.01</td>
<td>90 or more</td>
</tr>
<tr>
<td>67.31</td>
<td>86 or more</td>
</tr>
<tr>
<td>92.31</td>
<td>80 or more</td>
</tr>
<tr>
<td>100.00</td>
<td>75 or more</td>
</tr>
</tbody>
</table>

Item Analysis - The scores were analyzed by items using two forms of data: Percentage of successful students, answering each item successively, and the difference in the number of successful students in the pre-test and post-test. The results are shown in Table 5.

The item analysis, in Table 5, illustrates an acceptable level of accomplishment on the part of the learners. All 44 items were signifi-
Table 1

AN ITEM ANALYSIS OF THE SCORES BETWEEN THE PRE-TEST AND THE POST-TEST

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PRE-TEST</th>
<th>POST-TEST</th>
<th>DIFFERENCE</th>
<th>( \chi^2 )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>102</td>
<td>2</td>
<td>3.36</td>
<td>.069</td>
</tr>
<tr>
<td>2</td>
<td>90</td>
<td>92</td>
<td>2</td>
<td>3.75</td>
<td>.054</td>
</tr>
<tr>
<td>3</td>
<td>80</td>
<td>82</td>
<td>2</td>
<td>4.69</td>
<td>.030</td>
</tr>
<tr>
<td>4</td>
<td>70</td>
<td>72</td>
<td>2</td>
<td>6.97</td>
<td>.009</td>
</tr>
<tr>
<td>5</td>
<td>60</td>
<td>62</td>
<td>2</td>
<td>13.24</td>
<td>.0005</td>
</tr>
<tr>
<td>6</td>
<td>50</td>
<td>52</td>
<td>2</td>
<td>25.00</td>
<td>.0001</td>
</tr>
</tbody>
</table>

Note: Three of the items at \( \alpha .05 \), two of the items at \( \alpha .01 \), and one of the items at \( \alpha .001 \) proved not to show significant growth between the pre-test and post-test.
### TABLE 5: (Continued)

**AN ITEM ANALYSIS OF THE SCORES BETWEEN THE PRE-TEST AND THE POST-TEST**

<table>
<thead>
<tr>
<th>ITEM</th>
<th># OF SUCCESSFUL STUDENTS</th>
<th>% OF SUCCESSFUL STUDENTS ON POST TEST</th>
<th>DIFFERENCE BETWEEN PRE- &amp; POST-TEST:</th>
<th>$\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>31</td>
<td>17</td>
<td>44</td>
<td>84</td>
<td>11.93</td>
</tr>
<tr>
<td>32</td>
<td>12</td>
<td>46</td>
<td>88</td>
<td>19.93  ***</td>
</tr>
<tr>
<td>33</td>
<td>12</td>
<td>45</td>
<td>86</td>
<td>19.10  ***</td>
</tr>
<tr>
<td>34</td>
<td>13</td>
<td>45</td>
<td>86</td>
<td>17.75  ***</td>
</tr>
<tr>
<td>35</td>
<td>12</td>
<td>47</td>
<td>90</td>
<td>20.76  ***</td>
</tr>
<tr>
<td>36</td>
<td>5</td>
<td>44</td>
<td>84</td>
<td>46.50  ***</td>
</tr>
<tr>
<td>37</td>
<td>8</td>
<td>46</td>
<td>88</td>
<td>26.74  ***</td>
</tr>
<tr>
<td>38</td>
<td>6</td>
<td>46</td>
<td>88</td>
<td>30.76  ***</td>
</tr>
<tr>
<td>39</td>
<td>2</td>
<td>47</td>
<td>90</td>
<td>41.32  ***</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
<td>46</td>
<td>88</td>
<td>40.33  ***</td>
</tr>
<tr>
<td>41</td>
<td>1</td>
<td>45</td>
<td>86</td>
<td>42.08  ***</td>
</tr>
<tr>
<td>42</td>
<td>3</td>
<td>48</td>
<td>92</td>
<td>51.00  ***</td>
</tr>
<tr>
<td>43</td>
<td>1</td>
<td>48</td>
<td>92</td>
<td>45.08  ***</td>
</tr>
<tr>
<td>44</td>
<td>2</td>
<td>45</td>
<td>86</td>
<td>39.36  ***</td>
</tr>
</tbody>
</table>

* : $p \leq .05$  
** : $p \leq .01$  
*** : $p \leq .001$

**Percentage of Successful Students** - The percentage of successful students on the items of the post-test was in a range from 86 to 100. This was taken to indicate that an acceptable level of accomplishment had been reached on all items.

**Difference Between Pre-test and Post-test Scores** - The difference between the number of successful students for each item on the pre-test and on the post-test was calculated and significance of the difference was tested by $\chi^2$. It was found that for all items but two there was a significance at $p \leq .05$ or better. This was taken to be
an indication of significant growth in learning between the pre-test and post-test.

Conclusion

All the methods of testing and evaluation that were applied, using either teachers, students or a combination of both, as well as more informal trials of the unit indicated that the instructional unit meets its objectives.
VIII

REVISONS, CONCLUSION AND RECOMMENDATIONS

Revisions

It was decided by the developer following testing to produce a
teacher handbook for the instructional unit. The teacher hand-
book included:

1. Procedures to be followed in using the instructional ma-
terials on L'Anse aux Meadows;
2. A list of objectives;
3. A copy of the slide narration;
4. A sample test;
5. A set of transparency masters;
6. A list of books for further reading.

Conclusion

"The children thoroughly enjoyed the presentation of the Viking
exploration. The material was presented in a manner in which
children could associate the past and present. The booklet and
slides made a rather dull chapter in the textbook interesting."
(Grade Five Teacher).

In the opinion of the developer, students can be encouraged to
be interested in the Norse People as having a significant role in
the historical development of Newfoundland. Therefore the developer
is confident, in concluding, that the instructional unit succeeded
in accomplishing its stated objectives.

Recommendations

In preparation of this project, several areas for further develop-
ment were noted:
1. The provincial government has completed a three-phased programme concerning the site: Phase One (a paved road leading into the site), Phase Two (the development of a museum at the site), Phase Three the reconstruction of the Norse settlement at L'Anse aux Meadows. The Instructional Unit could be expanded to include such items as articles and pictures on the reconstructed site.

2. The technical quality of the audio portion of the kit should be improved by a professional narrator and professional equipment.

3. The development of Instructional units on other explorers, and early settlers of Newfoundland and Labrador would be beneficial to the present curriculum.
BIBLIOGRAPHY


Neary, Peter, and O'Flaherty, Patrick (eds.). By great waters: A Newfoundland and Labrador anthology. Toronto: University of Toronto, 1974.


APPENDIX A

PRE-TEST/POST-TEST
PRE-TEST/POST-TEST

1. In the space provided, to the right, tell whether the following statements are true or false:

1. The Vikings left Norway because they were afraid of their king, Harald.  
2. Bjarni and his crew were the first white men to land at Vinland.  
3. Leif the Lucky brought Christianity from Norway to Greenland.  
4. Leif the Lucky discovered Iceland.  
5. The Vikings left Vinland because of fierce fights with the Skraelings.  
6. Ingolf and his crew were the first people to settle in Iceland.  
7. The Vikings had the first real Parliament in the world.  
8. Leif the Lucky discovered Markland.

11. Match the names, in column A, with the correct description of the person, in column B.

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Erik the Red</td>
<td>a. He left Norway to discover Iceland</td>
</tr>
<tr>
<td>2. Thjodhild</td>
<td>b. She was the wife of Erik the Red, and the mother of Leif the Lucky</td>
</tr>
<tr>
<td>3. Bjarni</td>
<td>c. He had to leave Norway because he killed a man in a quarrel. He founded Greenland.</td>
</tr>
<tr>
<td>4. Leif the Lucky</td>
<td>d. He was the first person to see North America.</td>
</tr>
<tr>
<td>5. Thordvald</td>
<td></td>
</tr>
</tbody>
</table>
e. He brought Christianity from Norway to Greenland.
f. He was the first person to land in Vinland.

III. In the space provided tell what is meant by the following words:

1. VINLAND
2. MARKLAND
3. HELULAND
4. GREENLAND
5. ALTHING
6. SKRAELINGS
7. ARCHAEOLOGY
8. SAGA

IV. In the space below, draw a picture of a Norse boat. Including the single-scraped sail, the oars and the shields at the sides.
V. On the above map write the answers to the following questions:

1. Label the locations of:
   a. Greenland
   b. Iceland
   c. Labrador
   d. Strait of Belle Isle
   e. Newfoundland
   f. L'Anse aux Meadows

2. Trace the route taken by the Viking ships leading from Iceland to Newfoundland.

VI. Fill in the blanks.

1. __________________ provided a constant supply of fresh water to the settlement. It would also have been a source of trout and salmon.
2. ___________ discovered the Norse site at L'Anse aux Meadows.

3. ___________ was the name of an artifact found, by archaeologists, at the Norse site.

4. ___________ The Norsemen made their tools from it.

5. ___________ The Norsemen made their houses from it.

6. ___________ years, was the length of time the Norsemen stayed at L'Anse aux Meadows.
APPENDIX B

TEACHER EVALUATION FORM
TEACHER EVALUATION FORM

Quality of Material:
1. Is the content accurate and up-to-date? Yes____ No____
2. Is the material logically arranged? Yes____ No____
3. Is the material related to the curriculum? Yes____ No____
4. Is the sound clear appropriate and understandable? Yes____ No____
5. Is lettering and/or captions clear and discernible? Yes____ No____
6. Are visuals of good quality? Yes____ No____
7. Are visuals appropriate to the topic? Yes____ No____
8. Will use of the material arouse and maintain pupil interest? Yes____ No____
9. Are concepts and vocabulary suited to grade level? Yes____ No____
10. Is teacher's guide appropriate? Yes____ No____

Comments:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Recommended_________ Not Recommended_________
APPENDIX C

SLIDE/TAPE NARRATION
SLIDE NARRATION

Slide number:

1 - 4 Music

5 Five centuries before Columbus made his journey to the New World,

6 A party of Viking explorers set sail from

7 Greenland westward to the North American continent on a voyage of discovery.

8 When they returned home the next year, they told stories of a new and fertile country, rich in wild life of all kinds, with forests, wheat fields, and grazing lands.

9 Many pioneers followed these explorers in search of new lands. But where did they land?

10 Some sailed down the coast of Labrador and landed in northern Newfoundland

11 at a place called L'Anse aux Meadows.

12 L'Anse aux Meadows is situated on the northern tip of Newfoundland and is 300 miles from the Trans-Canada Highway turnoff at Deer Lake.

13 In 1960, Dr. Ingstad discovered at L'Anse aux Meadows a group of overgrown mounds which looked like Norse house sites.

14 Dr. Ingstad gathered together a group of archaeologists who, through a series of digs extending over seven seasons, excavated the site.

15 The remains of 8 houses of Norse type were uncovered. These houses are believed to have been built around the year 1000 A.D.

16 and are the same type found at other Norse sites in Iceland and Greenland.
The houses at L'Anse aux Meadows would not have modern fronts like the ones in the background, but the side of the house in front gives a fair idea of what a turf house would look like.

Important to the Norse settlement at L'Anse aux Meadows was Black Duck Brook. This brook provided an abundant supply of fish and fresh water.

Note: the grasslands surrounding the brook, for the Vikings were, above all, farmers, who would need grazing land for sheep and cattle.

Across the brook from the house sites, archaeologists uncovered the remains of a small structure dug into the bank. Its floor was covered with charcoal, mingled with nodules of bog iron, slag and fragments of iron. Only one activity leaves these kinds of traces - iron-working.

The Norsemen were skilled at smelting iron from a form of ore found in small nodules in bogs. A deposit of this ore lies within a few feet of the house at L'Anse aux Meadows.

As we have noted, many activities took place in the Norse settlement: house building, farming, fishing, and iron-working. Weaving also took place in the community.

A spindle-whorl was discovered. It was made out of soapstone and it was an instrument used by the Norse in the spinning of wool.

Jewelry must have been worn by the Norse people, because a bronze pin was discovered at the site. This pin is believed to date back as far as the 9th or 10th century.
This illustration will give you an idea of what the Norse settlement at L'Anse aux Meadows looked like.

Yet the Vikings stayed in Newfoundland for approximately two years.

There are many reasons why they left:

- the barren land,
- the harsh winters,
- and maybe they left the shores of Newfoundland to continue their explorations of the New World.

Music
APPENDIX D

STUDENT HANDBOOK.
THE VIKINGS
THE VIKINGS

(Student Handbook)

By

Ann Cody

The Resource Clearinghouse
Memorial University of Newfoundland
St. John's, Newfoundland, Canada
1983
TABLE OF CONTENTS

I. THE VIKINGS OF THE NORTH
II. THE FIRST DISCOVERERS OF NORTH AMERICA
III. QUESTIONS TO ANSWER
IV. THINGS TO DO
One summer, more than 1,000 years ago, Ingolf the Viking stood at the bow of his long wooden ship and gazed at the strange land that lay before him. He was a strong man, over 6 feet tall, with fair hair and blue eyes; and his companions were all hardy, brave sailors who had sailed their ship across unknown seas from Norway. At last they had found what they were seeking.

Ingolf and his companions had started on this long dangerous voyage because they wanted to find a new home. In Norway, where they were farmers, they used to build fine ships and spend part of their year sailing and exploring. They were fierce independent men, and they wanted to leave Norway because Harald, their king, was too stern.

The winters in Norway are long and cold, and the hours of daylight very short. The farmers would spend the long dark hours at home playing games and listening to stories and songs about the adventures of brave heroes. None of them
could read or write, so the stories or 'sagas' were learnt by heart and passed on from father to son. Ingolf had heard stories of an island across the sea which some Viking sailors had found quite by accident when a gale had blown their ship off course. They called the island Iceland because they saw mountains and glaciers—although it is not really as cold as that sounds. Ingolf and his friends, who loved exploring, decided to set out and find this new land.

Their ship, like the one in the picture, was built of oak planks with the edges overlapping and nailed together with iron rivets. It was about 70 feet long and 16 or 17 feet broad. It had one mast amidships with a square sail and sixteen pairs of long oars, each worked by one or two men. Like all Viking Ships, it had a carved and painted wooden figurehead at each end. In these splendid ships the Vikings used to go on long trading voyages, and they also made raids on their
neighbours, killing and plundering, so that the monks on the islands and coasts of Scotland used to pray 'From the fury of the Northmen deliver us, oh Lord!'

But Ingolf and his crew did not want to plunder and sail away. They meant to settle, and they took with them their wives, their tools, and some sheep. Ingolf called the place where they landed Reykjavik, which means 'Smoky Bay', and that is the name of the capital of Iceland to this day. He and his friends soon built rough houses of turf and stone, made farms, and caught fish for food.

More Vikings from Norway soon followed Ingolf, and in a few years there were more than 1,000 people living in Iceland. They set up the first real parliament in the world called the 'Althing' (meeting of everyone), which met once a year on a grassy plain outside the town; and they kept the same laws that they had in Norway. Since
the Vikings were above all sailors and adventurers, they also many voyages, especially northwards and westwards. More than 100 years after Ingolf's voyage another Viking, called Erik the red, also left Norway for Iceland. Erik, was fiery-tempered,
and he had to flee from Norway when he was quite a young man because he had killed another man in a quarrel. But Erik was soon in trouble in Iceland, and when again he killed a man in a quarrel, he had to leave there too. Erik had heard tales of a land of high mountain peaks to the west, and he soon found friends enough to make a ship's crew and set out in search of the new land.

They sailed for many days, steering by the stars, until at last they came to a frozen coast with high snow-covered peaks and steep valleys. Even the sea was full of icebergs. There was nowhere to land, so they sailed southwards round the coast until they found a possible place where there was a little grass. Erik called the place Brattelid, and they landed there and made a farm and built rough houses. He called this barren land Greenland in order to make other people think that it was
really a pleasant place, as good as Iceland. He sailed back to Iceland to persuade others to come and settle in Greenland, and in the year 985 he returned at the head of a whole fleet of twenty-five Viking ships.

Erik with his wife Thjodhild lived in Greenland until Erik died 17 years later. It was a rough life, and they had to work hard to find enough food for themselves and their animals.
THE FIRST DISCOVERERS OF NORTH AMERICA
Among the Vikings who came to join Erik the Red in Greenland was a sailor called Bjarni. He made several journeys back to Iceland to collect supplies, for life was hard in Greenland and food was often short. Once, when he was sailing back from Iceland, his ship was caught up in a fierce storm which lasted for several days. When the storm and the wind finally died down and the fog lifted, the Vikings found that they were hopelessly lost.

Then suddenly one of the crew sighted land. But this was not Greenland for the coast was covered with woods and looked much more inviting than the Greenland coast. Although his sailors wanted to land, Bjarni would not go ashore even to look for fresh water. Instead, he turned northwards again, and finally got back to Greenland. He and his crew were the first white men to see North America.

By this time Erik's eldest son Leif Eriksson, or Leif the Lucky, had grown big and strong and a skilled sailor. He had
Thjodhild's church in Greenland

sailed several times from Greenland to Iceland and Norway and back, and also to Scotland. In the year 1,000 he brought Christianity from Norway to Greenland, and although the fierce old Viking Erik would never give up his heathen gods, Leif's mother Thjodhild became a Christian and built a church near their farm. Leif wanted to find a land less harsh than Greenland where there was better grass for his animals. So when he heard Bjarni's stories of the
Land he had seen, he made up his mind to go and look for it. He bought Bjarni's boat, and with thirty-five companions as bold as himself, he set sail for the west.

The first land they came to was a low rocky coast without a blade of grass anywhere, which Leif called Helluland, or Flatstone Land. They sailed on southwards until they saw land again, this time a wooded coast which they called Markland, or the Land of Forests. They went ashore for a little, and then sailed on southwards. They saw a place that looked so pleasant that they decided to land. They found a broad river full of salmon, trees loaded with fruit, and good grass. So they decided to stay there through the winter, and they set to work to build themselves wooden huts. Some of them, exploring further, came back to camp with grapes, and Leif called the land Vinland (or Wineland).
The following spring they returned to Greenland with the wonderful news of what they had found. Leif's younger brother, Thorvald, decided that he would go to Vinland and settle there and explore further. He and his men found their way across the ocean, and they landed and began to make a colony. But when they explored further they were attacked by fierce wild tribes, ancestors of the 'Red Indians, or Eskimos', whom they called Skraelings. There were fierce fights, but the Vikings held their own for nearly 2 years until Thorvald their leader was killed by an arrow. The rest of the party decided to give up and return home.

Some years later another party set out to make a home in Vinland. They had three ships, 160 men, some of their wives, cattle, and sheep. They found Leif's camp and they made a headquarters there for three years. But the Skraelings attacked them
The Vikings defend themselves against Skraelings, the people of Vinland.
fiercely, and the Vikings quarrelled bitterly among themselves, and finally they all went back to Greenland.

The Vikings soon forgot about the new lands in the west. In course of time they even gave up their colony in Greenland. But the adventures of Ingolf, Erik the Red, Bjarni, and Leif Eriksson were remembered and repeated in the Norse sagas and songs. Later, the sagas were written down, but no one really knew for sure how much was made up. Quite recently archaeologists, whose work it is to hunt for traces of the past, began to find real things to show just where the Vikings had been. A few years ago they found and excavated Thjodhild's church in Greenland and the churchyard where Erik and Leif were almost certainly buried. Then, most exciting of all, they found the first Norse settlement in North America. They dug up remains of the houses and tools and weapons, and even pieces of a spinning wheel which was commonly used in Norway and which could not possibly have
reached North America except with the Vikings.

When, nearly 500 years after the Vikings had left, John Cabot sailed westwards from Bristol and discovered a land which he called 'Newfoundland', he thought he was the first white man to discover it, for he knew nothing about Leif Eriksson and the Viking explorers who had settled at L'Anse aux Meadows on the northern tip of Newfoundland.

Spindle whorl found at L'Anse aux Meadows by Dr. Ingstad's wife, an archaeologist. Before the day of the spinning wheel a spindle whorl, placed on a round shaft, was used to rotate the shaft while thread was being spun on it.
QUESTIONS TO ANSWER

1. Give two reasons why the Vikings left their homes in Europe.
2. In what other countries did they settle?
3. Why did Lief the Lucky call the new country Vinland?
4. Give three reasons that might have made the Norsemen leave North America.
5. In about what year did Lief the Lucky find Vinland?
6. For about how many years after the Vikings left, was North America unknown to white men?
7. Explain the meaning of saga.
THINGS TO DO

1. Draw a map of Western Europe and North America in your notebook. Mark on it Norway, Denmark, Iceland, Greenland, Labrador, Newfoundland. Show the routes taken by Eric the Red and Lief the Lucky.

2. Make a model of a Viking ship. Don't forget the single striped sail, the oars and the shields at the sides.

3. Write an imaginary conversation between Lief the Lucky and his father, Eric the Red, on Lief's return from Vinland. Make up a short play and act it out.
APPENDIX E

TEACHER'S HANDBOOK
THE VIKING

The Resource Clearinghouse
Memorial University of Newfoundland
St. John's, Newfoundland, Canada
1993

By
Ann Cody

(teacher's handbook)
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Procedures to be followed in using the instructional materials on L'Anse aux Meadows</td>
<td>1</td>
</tr>
<tr>
<td>11. Objectives</td>
<td>2</td>
</tr>
<tr>
<td>III. Slide Narration</td>
<td>3</td>
</tr>
<tr>
<td>IV. Sample Test</td>
<td>7</td>
</tr>
<tr>
<td>V. Transparency Masters</td>
<td>12</td>
</tr>
<tr>
<td>VI. Books for further reading</td>
<td>19</td>
</tr>
</tbody>
</table>
A LIST OF PROCEDURES TO BE FOLLOWED IN USING THE INSTRUCTIONAL MATERIALS ON L'ANSE AUX MEADOWS

1. Read teacher's handbook;
2. Provide students with a copy of the objectives;
3. Provide students with a copy of the student handbook and provide time for them to read it;
4. Have a short discussion on the handbook pointing out information required by the objectives;
5. Use transparencies for introducing L'Anse aux Meadows;
6. Show slide tape;
7. Have a question and answer period;
8. Give students the sample test and have them complete it.
OBJECTIVES

1. To locate, on a given map, the Norse site at L'Anse aux Meadows.

2. To trace, on a map, the route taken by the Norse leading from Iceland to Newfoundland.

3. To label, on a map, the locations of Greenland, Iceland, Labrador, Strait of Belle Isle, and Newfoundland.

4. To write the meanings of the following words:
   (a) VINLAND
   (b) MARKLAND
   (c) HELULAND
   (d) GREENLAND
   (e) NAHTING
   (f) SKRAELINGS
   (g) ARCHAEOLOGY
   (h) SAGA

5. Given a list of statements on the Norse explorations, be able to tell which are true and which are false.

6. To match the following group of names with, the description of, or the activity of, the person involved:
   (a) ERIK THE RED
   (b) THJODHILD
   (c) BJARNI
   (d) LEIF THE LUCKY
   (e) THORVALD
   (f) INGOLF

7. Draw a picture of a Norse boat including the single striped sail, the oars and the shields at the sides.

8. Given a list of statements on the Norse site at L'Anse aux Meadows, be able to fill in the blanks.
SLIDE NARRATION

Slide number:

1 - 4 Music

5 Five centuries before Columbus made his epic journey to the New World.

6 A party of Viking explorers set sail from Greenland westward to the North American continent on a voyage of discovery.

7 When they returned home the next year, they told stories of a new and fertile country, rich in wildlife of all kinds, with forests, wheat-fields, and grazing lands.

8 Many pioneers followed these explorers in search of new lands. But where did they land?

9 Some sailed down the coast of Labrador and landed in northern Newfoundland.

10 at a place called L'Anse aux Meadows.

11 L'Anse aux Meadows is situated on the northern tip of Newfoundland and is 300 miles from the Trans-Canada Highway turnoff at Deer Lake.
13 In 1960, Dr. Ingstad discovered at L'Anse aux Meadows, a group of overgrown mounds which looked like Norse house sites.

14 – 18 Dr. Ingstad gathered together a group of archaeologists who, through a series of digs extending over seven seasons, excavated the site.

19 – 20 The remains of 8 houses of Norse type were uncovered. These houses are believed to have been built around the year 1000 A.D.

21 and are the same type found at other Norse sites in Iceland and Greenland.

22 The houses at L'Anse aux Meadows would not have modern fronts like the ones in the background, but the side of the house in front gives a fair idea of what a turf house would look like.

23 Important to the Norse settlement at L'Anse aux Meadows was Black Duck Brook.

24 This brook provided an abundant supply of fish and fresh water.

25 Note: the grasslands surrounding the brook, for the Vikings were, above all, farmers, who would need grazing land for sheep and cattle.
Across the brook from the house sites, archaeologists uncovered the remains of a small structure dug into the bank. Its floor was covered with charcoal, mingled with nodules of bog iron, slag and fragments of iron. Only one activity leaves these kinds of traces, iron working.

The Norsemen were skilled at smelting iron from a form of ore found in small nodules in bogs. A deposit of this ore lies within a few feet of the house sites at L'Anse aux Meadows.

As we have noted, many activities took place in the Norse settlement: house building, farming, fishing, and iron-working. Weaving also took place in the community.

A spindle-whorl was discovered. It was made out of soap stone and it was an instrument used by the Norse in the spinning of wool.

Jewelry must have been worn by the Norse people because a bronze pin was discovered at the site. This pin is believed to date back as far as the 9th or 10th century.

This illustration will give you an idea of what the Norse settlement at L'Anse aux Meadows looked like.

Yet the Vikings stayed in Newfoundland for approximately two years.
There are many reasons why they left: the barren land,
the harsh winters,
and maybe they left the shores of Newfoundland to continue
their explorations of the New World.

Music
SAMPLE TEST

I. In the space provided, to the right, tell whether the following statements are true or false.

1. The Vikings left Norway because they were afraid of their king, Harald. 

2. Bjarni, and his crew were the first white men to land at Vinland. 

3. Leif the Lucky brought Christianity from Norway to Greenland. 

4. Leif the Lucky discovered Iceland. 

5. The Vikings left Vinland because of fierce fights with the Skraelings. 

6. Ingolf and his crew were the first people to settle in Iceland. 

7. The Vikings had the first real parliament in the world. 

8. Leif the Lucky discovered Markland.

II. Match the names, in column A, with the correct description of the person in column B.

<table>
<thead>
<tr>
<th>COLUMN A</th>
<th>COLUMN B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Erik the Red</td>
<td>a. He left Norway to discover Iceland.</td>
</tr>
<tr>
<td>2. Thjodhild</td>
<td>b. She was the wife of Eric the Red, and the mother of Leif the Lucky.</td>
</tr>
</tbody>
</table>
3. Bjarni  
   c. He had to leave Norway because he killed a man in a quarrel. He founded Greenland.
4. Leif the Lucky  
   d. He was the first person to see North America.
5. Thorvald  
   e. He brought Christianity from Norway to Greenland.
6. Ingolf  
   f. He was the first person to land in Vinland.

III. In the space provided tell what is meant by the following words:

1. VINLAND
2. MARKLAND
3. Helluland
4. Greenland
5. AltHing
6. Skraelings
7. Archaeology
8. Saga
IV. In the space below, draw a picture of a Norse boat including the single striped sail, the oars and the shields at the sides.
V. On the above map write the answers to the following questions:

1. Label the locations of:
   a. Greenland       d. Strait of Belle Isle
   b. Iceland         e. Newfoundland
   c. Labrador        f. L'Anse aux Meadows

2. Trace the route taken by the Viking ships leading from Iceland to Newfoundland.
VI. Fill in the blanks.

1. ___________ provided a constant supply of fresh water to the settlement. It would also have been a source of trout and salmon.

2. ___________ discovered the Norse site at L'Anse aux Meadows.

3. ___________ was the name of an artifact found, by archaeologists, at the Norse site.

4. ___________ The Norsemen made their tools from it.

5. ___________ The Norsemen made their houses from it.

6. ___________ years, was the length of time the Norsemen stayed at L'Anse aux Meadows.
PICTURE OF THE VIKING HOUSES THAT ONCE STOOD AT L'ANSE AUX MEADOWS
1. House-site with six rooms
2-6 Small houses
7. Typical Norse Longhouse
8. Smithy
9. Black Duck Brook
BOOKS FOR FURTHER READING

AREMAN, H., The Vikings (Thames & Hudson, London, 1961)
CORRAN, D.O., Ireland before the Normans (Gill & Macmillan, Dublin, 1972)
HAMILTON, J.R.C., Excavations at Jarlshof (BMSO, Edinburgh, 1956)
INGSTAD, H., Westward to Vinland (Jonathan Cape, London, 1969)
JONES, G. (transl), Egil's Saga (Syracuse University Press, USA, 1960)

The Norse Atlantic Saga (Oxford University Press, 1964)
A History of the Vikings (Oxford University Press, 1968)
KROGH, K.J., Viking Greenland (Copenhagen National Museum, 1967)
MAGNUSSON, M. and PALSSON, H., The Vinland Sagas (Penguin Classics, Harmondsworth, 1965)
SIMPSON, J., Everyday Life in the Viking Age (Batsford, London, 1967)
STENTON, F.M., Anglo-Saxon England (Oxford University Press, 1947)

TAYLOR, A. B., 9transl), The Orkneyinga Saga (Oliver & Boyd; Edinburgh, 1938)

APPENDIX F

SLIDE TAPE PRESENTATION:
"NORSE SITE AT L'ANSE AUX MEADOWS"
(Under separate cover.)
FORTY-FOUR SLIDES AND ONE CASSETTE TAPE ENTITLED "THE NORSE SITE AT L'ANSE AUX MEADOWS" WERE OMITTED. THESE ITEMS CANNOT BE MICROFILMED. FOR FURTHER INFORMATION PLEASE CONTACT THE FOLLOWING:

Ms. Ann Cody,
13 Bell's Turn,
ST. JOHN'S, Newfoundland.

OR

Memorial University of Newfoundland,
Main Library,
ST. JOHN'S, Newfoundland.
A1C 5S7