

A Sampling of Recent Videotaped Lectures and Short Courses

The East Greenland Rift

Produced for British Petroleum
by Geofilms Ltd.

Distributed by Geofilms Limited
12 Thame Lane

Culham, Oxford OX14 3DS UK

VHS format, PAL INTSC, or SECAM system
available, ~ 1 hr., 40 min., 2 tapes, workbook,
1991, £380 + £24 S&H; extra workbook £60 +
£8 S&H

Ore Deposits, Tectonics and Metallogeny in the Canadian Cordillera — A Short Course

By the British Columbia Geological Survey
Branch

Distributed by AM Productions Inc.

48 East 6th Avenue

Vancouver, BC V5T 4P4

VHS format, ~ 7 hrs., 4 tapes, 1990, \$45.00
each or \$140.00 CDN for set

Porphyry Cu-Au Deposits

Cordilleran Mineral Deposits Video Series
Sponsored by the Geological Association of
Canada — Cordilleran Section

Distributed by AM Productions Inc.

48 East 6th Avenue

Vancouver, BC V5T 4P4

VHS format, 3 hrs., 30 min., 2 tapes, 1990,
\$90.00 CDN

Basin Development and Petroleum Exploration

By AAPG Films

Distributed by American Association of
Petroleum Geologists

Box 979, Tulsa, Oklahoma USA 74101-0979

VHS Format, 43 minutes, 1989, \$63.00 US

Development Geology: Advances in the Eighties, Prospects for the Nineties

By AAPG Films

Distributed by American Association of
Petroleum Geologists

Box 979, Tulsa, Oklahoma USA 74101-0979

VHS Format, 46 minutes, 1991, \$39.00 US

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Geosciences in Canada are undergoing considerable change these days as result of heightened interest in the area of environmental geoscience, changes within the mining and petroleum industry, and the professional registration of geoscientists in many provinces. As a result of these changes, considerably more interest is being paid by

geoscience societies to the subject of continuing professional education. Unfortunately, in this time of budgetary constraints, it is becoming increasingly difficult for professionals to travel to and participate in the workshops, symposia, short courses, and other gatherings that provide continuing professional education opportunities for geoscientists. Videotape provides one means of taking the message directly to the professional, at modest cost, and this review examines five different approaches to the subject currently available to geoscientists.

The East Greenland Rift, represents the ideal, although expensive, approach. This video short course—field trip is accompanied by an extensive and well-illustrated workbook on the East Greenland Rift, a tutorial guide to be used by an individual in teaching the video-workbook package, and the video, which is linked directly to the workbook. The workbook is essentially a textbook on the East Greenland Rift, and includes numerous black-and-white and colour photographs and maps, as well as seismic sections. The workbook also provides exercises so that the user may begin to learn how to apply the concepts presented within the package. In fact, much of the direct application of study of the East Greenland Rift to petroleum exploration is covered within these exercises. It would almost be worthwhile buying this package just to get the workbook.

The package was designed by British Petroleum as an in-house short course that could be used to explain to geological staff how rift basins develop, and to provide geological and geophysical characteristics of rift basins. An added bonus is a section on how half-grabens form and their seismic signatures. The East Greenland Rift was chosen because it is similar to other Permian to Cretaceous age rift basins in the North Atlantic area (e.g., Barents Sea basin, North Sea basin), and because offshore segments of the rift have been seismically imaged, but primarily because of the abundance of excellent, clean, unweathered field exposures.

The course assumes a solid senior undergraduate level background in clastic sedimentology, an ability to interpret reflection seismic profiles from sedimentary basins, and familiarity with the North Sea basin. This background knowledge reflects the fact that the *East Greenland Rift* package was developed to suit the needs of a British-based petroleum exploration firm dealing with exploration of offshore basins, particularly those in the North Atlantic. The emphasis on clastic sedimentology becomes apparent in Programme 2, where a review of carbonate sedimentology is provided in the workbook section and, in Programme 3, where the user is required to construct a chronostratigraphic chart and examine regional facies variation. The review of carbonate sedimentology is needed because it is assumed that the user is most familiar with clastic sedi-

ments, and the review of regional basin analysis is necessary because it is assumed that the user is not a field geologist. This user-tailored approach is not a flaw, but a strength since it indicates that the producers had a specific target audience in mind when the program was produced. This is in contrast to some of the other videos reviewed here which seem to have been prepared without due consideration of the likely audience.

Although tailored for petroleum explorationists, *The East Greenland Rift* has considerable potential for use in senior undergraduate or graduate level university courses, especially given the abundance of supplementary material and references available to the instructor. It would be ideally suited for use in courses on clastic and carbonate sedimentology, basin analysis, petroleum geology, and the application of geophysics to petroleum exploration. The programs can be watched separately in varying order, depending on how you wish to integrate them into a course of instruction. Further, because of the abundance of material covered in the workbooks and in the videos, the running time of the videos of roughly two hours reflects the absolute minimum time needed to study this package. If used in a course, two 3-hour labs would be a more appropriate period in order to digest the fundamentals presented in the *East Greenland Rift* package.

On a personal level, I found the program interesting in three important areas as it relates to the study of rifts. First, it emphasizes the fact that many rifts are, in fact, asymmetric and typically composed of numerous half-grabens, in contrast to the more popularly held view that rifts are symmetrical grabens. Second, it emphasizes the fact that under the proper conditions, rifts can accumulate significant sequences of carbonate sediments, particularly if they are open to the sea. This is in contrast to the popular view of rifts as accumulators of coarse clastic sediments and mafic volcanic rocks. In fact, it is only in the very late stages of development of the East Greenland Rift that mafic magmatism becomes significant. Third, I was impressed with the longevity of the rift, and the documented changes in evolution of the rift basin from the Permian to the Tertiary.

Yes, this package may appear expensive at first glance. But given the facts that it provides a video field trip to East Greenland (an expensive proposition), it comes with a well-designed and complementary workbook, it is designed for a professional audience, and it deals with so many aspects of basin analysis and interpretation, it is well worth the price. Plus, this is not simply a two-hour video set that can be viewed and put aside. To adequately read the workbook, do the tutorial exercises, and get the most out of the videos, considerably more time is

needed to study this package. In this context as well, the cost is not excessive. With some thought and pre-planning, a part-semester course on petroleum geology, basin analysis, or the geology of the North Atlantic region could be designed using the *East Greenland Rift* package as a centrepiece. Although its purchase may be limited to a few exploration firms and university programs, it can be used to educate numerous geologists; on a per capita basis, its cost is reasonable. Thus, I highly recommend both the package and the approach taken in the production of the *East Greenland Rift*.

A second, less expensive, approach is exhibited by the short course on *Ore Deposits, Tectonics and Metallogeny in the Canadian Cordillera*. This seven-hour set of tapes is the video record of a short course given by staff of the British Columbia Geological Survey (BCGS) Branch at GAC-MAC VANCOUVER '90 in May 1990. The approach taken by the producer and distributor, AM Productions Limited, was simply to videotape the lectures, adding introductory titles to the presentations. As these are talks illustrated primarily through the use of projected colour slides, most of the time is devoted to showing the slides and little time is spent focussing on talking heads. Even though the videos were simply taped from the screen on which they were projected, the quality is excellent for the most part. The only slides that are difficult to read are those that you could not read if you were in the front row of the audience. If nothing else, this tape clearly illustrates what makes a good slide and what makes a bad slide in an oral presentation. The best slides, as it turns out, are scenery and rock slides, and these abound in many of the presentations.

The talks were taped live, warts and all, and include the occasional fumbling with slides and microphones, the sound of ambulance sirens in the distance, etc. For the most part, however, these distractions are minimal and, indeed, give the rather refreshing feel and intimacy of a live presentation, rather than the dullness of a rehearsed and polished presentation. I have to admit that the quality of this short course, in both substance and presentation, exceeded my expectations, and I recommend it highly.

The short course provides an excellent overview of the mineral deposits of the Canadian Cordillera and, because of the emphasis on plate tectonics and its relationship to mineralization in the Cordillera, is useful to anyone interested in mineral deposits. I found the overviews on skarn and porphyry deposits particularly relevant to my own mapping studies in the Grenville Province, and I am sure other viewers will receive similar insights that are directly relevant to their particular mapping focus. Other topics include an Overview of the Tectonic Evolution of the Cordillera, SEDEX Deposits, Carbonate-Hosted Massive Sulphide Deposits,

Gold, Volcanogenic Massive Sulphide Deposits, the Mineral Potential of Ultramafic Rocks, and Summary Comments — Towards a Metallogeny. Most individual presentations are 50 minutes to an hour long. Although taped in May 1990, the course is still current, and will likely remain so for several years to come.

An added bonus for anyone wishing to use this short course is that it complements a recently published BCGS Paper of the same name (Paper 1991-4, 276p., paper, Cdn \$60, 1992, available from Crown Publications). Thus, for \$200 plus taxes, one has an excellent short course volume, and an illustrated overview of the various sections by the authors. The abundance of rock and outcrop examples in the talks ideally complements the volume, which allows for more detailed examination of many of the line drawings in the video. Unfortunately, the advertising of the video does not note the existence of this all-important, related publication, and it was only a coincidence that I had already purchased a copy of Paper 1991-4 before viewing the video. As the taping was sponsored by the Mineral Deposits Division of GAC, perhaps some arrangement can be made with the distributor to make it available as a book and video set, as it is certainly much more useful to the user in combination than in separate parts.

This short course could easily be adapted to classroom use. Ideally, other provinces may eventually follow suit, and, with time, a set of courses dealing with the mineral deposits of each province and territory in Canada would be produced.

In addition to the short course, the Cordilleran Section of the GAC also arranged for AM Productions Limited to tape several mineral deposit sessions at GAC-MAC VANCOUVER '90. I have reviewed only one of the five taped sessions here, that on *Porphyry Cu-Au Deposits*, in part due to space limitations, and in part because the comments I have to make on these five sessions are generally similar. Production methods are the same as in the short course described above. Other than the later introduction of titles, the sessions were taped live and focussed on the slides on the screens. Any formal discussion after the presentation is also recorded.

In all five sessions, all speakers were present, so the papers listed in the GAC-MAC Program and Abstract volume for VANCOUVER '90 are represented in their entirety. Again, the quality of reproduction of the slides, for the most part, is high. Overheads, however, do not work well because of their inherent brightness. As in the case of the above short course, the live "feel" of the presentation is a bonus, as it captures the excitement (or lack of it) of the speaker for his subject. Watching the video is like attending any technical session at a geoscience meeting. An excellent presentation may be followed by a presenta-

tion of lesser quality. Unlike the live talk, you can pause and view the slide longer or you can rewind and listen to a critical point or explanation again. As well, just as at the meeting, you can interrupt the talks for coffee and doughnuts.

One critical difference between these tapes and the short course is that the short course was run by staff members of the same organization, and consequently is more focussed, has a greater consistency of style, and has a better integration of subject material. In contrast, the talks from the GAC Special Session are given by a variety of individuals with different styles, and thus the videos lack the coherency of the short course. As such, viewers may only be interested in listening to one or two talks in a special session, not the whole session. One wonders how many geoscientists would be willing to pay \$90 to hear one or two talks, which may turn out to be disappointing. This is an important economic question for the producers and distributors of these tapes.

The video on *Basin Development and Petroleum Exploration*, produced by the American Association of Petroleum Geologists (AAPG) and the Geological Society of London, represents another approach to dealing with recording a series of presentations. It is a 43-minute synthesis of the 1989 William Smith lecture series of the Geological Society of London on "Basin Development". In it, a narrator provides an overview on the subject of basin development and petroleum exploration methods, and serves to link a series of interviews with some of the speakers in the lecture series. The interviews are done in a professional, controlled setting, and do not represent part of the original lecture. In fact, it is not clear if the topics discussed in the interviews were even dealt with in the lectures. The graphics look like they are filmed off a computer screen or a film recorder and, ironically, are far less legible than the projected images that are used in the AM Productions videos.

Although some of the interviews are interesting, particularly that with Dr. Ian Vann of British Petroleum explaining why so little oil is found in thrust belts and the difficulty in doing petroleum exploration in such belts (of particular relevance to western Canada), most only tantalize one's interest, and do not educate. In fact, it is unclear as to what audience this video is trying to reach. A well-written conference report would convey much more information about the lecture series than this tape does. It is not suitable for teaching purposes, as it teaches little, and it is too vague for any real professional educational role. In fact, it almost seems to be directed to convincing oil exploration managers that modelling of sedimentary basins is a useful exercise that may pay off in exploration success. Unlike any of the videos reviewed above, I can recommend neither this video nor the approach it takes in

trying to synthesize what was probably a very stimulating and relevant lecture series. In this case, professional quality production techniques do not yield a particularly relevant or useful product.

AAPG does somewhat better in the taped presentation of the AAPG 1991 Hass-Pratt Distinguished Lecture, given by W.J. Ebanks, Jr. on the topic of *Development Geology: Advances in the Eighties, Prospects for the Nineties*. Development geology is the speciality of using geologic and geophysical information to enhance the production of oil from a field, and draws upon field mapping, well-log data, sedimentology, geophysics and hydrology. The lecture is well organized and well illustrated, and the tape could probably be used in a classroom setting to introduce the subject to a senior undergraduate or graduate course in petroleum geology. Ebanks' final comments on the provision by companies and institutions of the necessary training for staff to enhance interdisciplinary studies, such as development geology, are relevant to the geoscience community as a whole.

Rather than a live delivery, the lecture was recorded in front of a camera, with graphics provided by a film-recorder or computer screen. Production quality is excellent, although, as in the case of the other AAPG video, the graphics are hard to read at normal viewing distances. The taped aspect produces a production without errors, although it is a bit dull.

This brief sampling allows a few conclusions to be made. First, short course lectures, particularly those well illustrated with line drawings and photographs, can be recorded on video. If distributed along with a set of short course notes or related reading material, such video lectures can be an excellent teaching tool for use both in the office and the classroom. The complete lecture, rather than a synopsis, is preferable.

Second, such productions need not be expensive to produce, as evidenced by AM Productions videos. Taping a short course as it is given works well, and helps convey the enthusiasm of the lecturers and the participants. Obviously some forethought by the speakers can improve slide quality and, hence, the educational benefits of the lecture. Most importantly, the video production does not impose any great burden on the short course lecturers.

Third, the amount of explanatory information accompanying the video tapes in all cases is minimal. AAPG simply lists the title, length and the name of one of the people shown in the video. Without having a review, an extended catalogue listing, or being able to review the video, the potential viewer has little on which to base a purchase. Even in the case of *The East Greenland Rift*, which has a detailed list of contents given in the promotional material distributed by Geofilms, one has to see the video and the

accompanying workbook to fully appreciate the excellence of the production and its potential application to various audiences. The AM Production videos at least list all the talk titles and the speakers, and their catalogue descriptions are long enough to allow a semi-informed judgement. Without such information, the potential buyer is not likely to purchase.

Fourth, one must consider the potential audience before producing the video. *The East Greenland Rift and Ore Deposits, Tectonics and Metallogeny in the Canadian Cordillera* are designed for a professional audience, and serve that audience well. In contrast, the audience of *Basin Development and Petroleum Exploration* is not well defined, and as a result, the usefulness of the final product is questionable.

Fifth, one has to consider the market, particularly for the special session tapes. One wonders how many individuals are likely to buy such videos. The most likely market is companies and institutions, but there may not be enough of these to support the production and distribution of these tapes. Although the potential of videos for taking continuing education to the user is high, that goal cannot be realized if the economics are not there. Plus, how does one decide what sessions to tape. At a typical GAC-MAC meeting, some 216 hours of talks, not including short courses, are given (equivalent to approximately 100 tapes). Obviously, we are a long way from being able to provide a complete record of an annual meeting.

In summary, there is considerable potential in using videos in the area of continuing professional education. Production need not be expensive or elaborate, and reasonably priced videos can be produced for distribution. Coherent themes such as short courses, especially if they have accompanying notes, are probably of greater overall benefit, and most likely to recoup their production costs.

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