

Lacustrine fans contain deposits similar to the delta front-prodelta slope sequence; the difference between the two is relative elevation to lake surface, and depositional slope. Fans deposits can form the core of later deltas.

Lakefloor sediments are rhythmites; the silt interval deposited either from the dilute tails of underflows or by direct suspension from overflows and interflows, whereas the clay interval results from continuous sedimentation of suspended material. These rhythmites may or may not be varves.

THE TACONIC FRONTAL THRUST SYSTEM

BOSWORTH, William P., Marathon Intl. Oil Co., P.O. No 68435
Box 3128, Houston, TX 77253; KIDD, W.S.F.; ROWLEY, David B., and STEINHARDT, Christoph, Geological Sciences, S.U.N.Y. at Albany, Albany, NY 12222

The Taconic Frontal Thrust defines the present western structural boundary of the Taconic Allochthon. Movement on this and kinematically related faults occurred after initial obduction onto the North American continental shelf, and so records only the final emplacement geometry. In the northern Taconics, these structures show little or no overprinting by later deformation. The Frontal Thrust emplaced regionally folded Taconic rocks over folded and cleaved flysch, with fault-related deformation occurring through grain boundary sliding, diffusive mass transfer, cataclasis and pervasive micro-shearing. On a larger scale, these are manifest in fault-related folds, fault breccias, fiber-filled extension fractures, composite shear systems, and anastomosing phacoidal cleavages. The only evidence for deformation of partially lithified rock is the incorporation of olistostromes into melange at the leading edge of the moving Allochthon. There is a complex, fine-scale imbrication at the front of the Allochthon. Slivers or small thrust sheets of Ordovician shelf carbonate with lateral dimensions of hundreds of meters to kilometers were involved in the imbrication process, helping to control the final geometry of the Frontal Thrust and resulting in the formation of ramps and tear faults in an otherwise gently east-dipping fault surface. At Bald Mtn. the carbonate slivers are interpreted to possess an internal duplex structure, with the Frontal Thrust forming the roof fault to the duplex. The Frontal Thrust appears to be geometrically related to other faults within both the Allochthon and the parautochthonous flysch to the west. As the faults in the flysch are overlain unconformably by Devonian rocks at the Helderberg Escarpment, motion on the Frontal Thrust System was confined to the Taconic Orogeny.

ARE GLAUCOPHANE- AND OMPHACITE-BEARING MAFIC ROCKS IN NORTH-CENTRAL VERMONT OLISTOLITHS IN A MELANGE?

BOTHNER, Wallace A., and LAIRD, Jo, Department of Earth Sciences, University of New Hampshire, Durham, NH 03824
Detailed mapping of the Tillotson Peak area, north-central Vermont confirms that the high-P facies series mafic and felsic rocks compose a coherent stratigraphic package. Stratigraphic continuity is indicated by gradational and parallel contacts, interfingering of mafic and felsic rocks at outcrop scale, and locally-preserved graded bedding and metaconglomerate. Ultramafic pods, some previously unrecognized, are probable tectonic slivers into the stratigraphic package. Although faults evidenced by local moderate to intense shear and by truncation of layering (some of which is bedding) occur, no zones of regional extent have so far been recognized within the package. Furthermore, fold styles are the same across faults.

Three generations of folding are recognized. Early isoclinal folds (F1) are refolded about gentle southwest to west plunging, mesoscopic and probable macroscopic nearly reclined folds (F2). The NW-trending doubly-plunging synform, as proposed by Cady and others (1963) does not appear tenable. Map pattern indicates later broad folding about an essentially north-south axis (F3).

The distribution of glaucophane- and omphacite-bearing mafic rocks, including eclogite (with up to 25 percent of both garnet and clinopyroxene), is greater than previously recognized. The infolded and stratigraphic character of the high-P mafic and felsic rocks argue against either an intrusive or an olistolithic origin for the mafic rocks.

REGIONAL FINITE STRAIN ANALYSIS OF BASAL DEVONIAN ORTHOQUARTZITES: VALLEY AND RIDGE PROVINCE, PENNSYLVANIA

BOWEN, James H., University of Connecticut, Geology and Geophysics, U-45, Storrs, CT 06268
Measurement of bulk strain in an orthoquartzite (Oriskany and Ridgely members of the Old Port Formation) has been made using a modified center to center technique combining both the Ramsay and Fry methods. The technique requires an initial material with an isotropic distribution of points. Mature orthoquartzites meet this criteria due to their high degree of rounding and sorting. The sampling and strain measurements were made in the Juniata culmination of the Valley and Ridge section of Pennsylvania. For contrast weakly deformed Oriskany sandstone from the New York plateau were also examined. Strain values obtained from the plateau were less than 5% but ranged from 5% to 25% in the Valley

and Ridge. Strain varies from one sample location to the next; but, generally increases to the southeast. Little extension is observed in the rocks, with strain resulting from a non-volume constant removal of portions of cement and clast. Strain values and orientations of principal directions are consistent with previous measurements from the region determined independently from crinoid and graptolite data. Dust ring removal provides evidence for volumetric strain. Plateau rocks possess prominent dust rings, in the Valley and Ridge however, dust rings are partially removed by dissolution, with the amount of dust ring varying inversely with the strain value. Increase in other deformation features such as deformation bands, lamellae, microcracks and recrystallization correlates well with strain values, and dust ring removal. These results are consistent with the requirement of volume loss in the cover layer in order to area balance sections through this region.

RATE OF RELATIVE PLATE MOTION DURING THE TACONIC ARC-CONTINENT COLLISION

BRADLEY, Dwight C., Dept. of Earth & Planetary Sciences, The Johns Hopkins Univ., Baltimore, MD 21218; KUSKY, Timothy, and TANSKI, Steven, Dept. of Geological Sciences, SUNYA, Albany, NY 12222
Three diachronous events affected the Ordovician continental shelf in New York immediately before the Taconic Orogeny: (1) emergence and erosion; (2) rapid subsidence, by a combination of block faulting and eastward tilting; and (3) a change from west-proximal carbonate deposition to east-proximal flysch deposition. The latter ended when the foreland basin was overridden from the east by the Taconic Allochthon and related thrust sheets. These events have been interpreted as the result of the collision between the ancient passive margin of North America and an island arc terrane over an east-dipping subduction zone. We describe a method of quantifying the rate of relative motion during arc-continent collision, using the Taconic Orogeny as an example. Flexural uplift, block faulting, and flysch sedimentation can be treated as steady state phenomena whose loci at a given time are governed by the position of the deformation front; hence they migrate toward the foreland at the rate of plate convergence. The ages of each of these diachronous events is plotted against distance across strike, and the slope of each line fitting like events gives a rate of relative plate motion. From autochthonous rocks in the Taconic foreland, a rate of 2 to 3 cm/yr is inferred from: the youngest unconformity below the flysch; conglomerates dating motion on normal faults; the base of the Utica and equivalent black shales; and the base of the Schenectady and equivalent turbidites. This result is comparable with modern rates of plate motion, and also agrees with Cisne's (1982, Lethaia) estimate, which was based on the rate at which a point in the outer trench slope passed through a fossil-defined isobath. Possible sources of error include: eustatic sea level change, oblique convergence, and non-linear convergence rate when collision was grinding to a halt.

STRUCTURAL ANALYSIS OF DEFORMED CARBONIFEROUS ROCKS, MISPEC BEACH, NEW BRUNSWICK.

BRADLEY, Lauren, M. and BRADLEY, D. C., Department of Geological Sciences, SUNYA, Albany, NY 12222
A structural analysis of deformed Carboniferous sedimentary rocks at Mispec Beach, New Brunswick was done to determine the extent to which the assorted structures present are an effect of variations in lithology and if they can be correlated between beds. A continuous beach pavement exposure was mapped at 1:50. The outcrop is a layered sequence of pebbly sandstone, sandstone, siltstone and mudstone which has been metamorphosed to chlorite grade giving the finer-grained beds a phyllitic sheen.

The structures observed at the outcrop are bedding, slaty and crenulation cleavages, both straight and sigmoidal quartz veins, aligned pebbles, kink bands, normal faults and joints. Bedding is nearly horizontal with only broad open folds present and there is strong lithologic control of the structures. The cleavages (slaty and crenulation) are developed in the siltstones and mudstones and can readily be seen in hand sample; however in the sandstones the slaty cleavage is observed only in thin sections and no crenulation cleavage is present. The effect of grain size on the development of crenulation cleavage (even within individual mudstone layers) makes the relationship between the two cleavages ambiguous in some areas. Quartz veins, which are pervasively developed in the sandstones and are only weakly developed in the siltstones, are present in the mudstones but with different orientations and different physical characteristics than those in the sandstone beds.

A correlation of the orientations of the principal axes of strain determined from the structures discussed above, is interpreted to suggest that the slaty cleavage, the sigmoidal quartz veins and the oriented pebbles are the products of the same deformational event and demonstrate the effect of a single deformation on varying lithologies.

4 Charles M. Onasch*: DEFORMATION OF MARTINSBURG GRAYWACKES IN MARYLAND AND PENNSYLVANIA [71355]	0910
5 Thomas O. Wright*: TIMING OF CLEAVAGE VS FOLDING SHORTENING IN THE MARTINSBURG AND REEDSVILLE FORMATIONS OF THE CENTRAL APPALACHIANS [68212]	0930
COFFEE BREAK	
6 J.R. Henderson*: FOLDING AND CLEAVAGE FORMATION IN THE GOLDENVILLE FORMATION, NOVA SCOTIA [69032]	1010
7 William P. Bosworth, W.S.F. Kidd*, David B. Rowley, Christoph Steinhardt: THE TACONIC FRONTAL THRUST SYSTEM [68435]	1030
8 Martin S. Rutstein*, Keith H. Gronwald, Diane L. Conrad: "ILLITE" CRYSTALLINITIES AND THE THERMAL HISTORY OF TACONIC FLYSCH OF THE NORTHERN APPALACHIANS [72609]	1050
9 Peter A. Geiser*: EVIDENCE FOR TACONIC AGE DEFORMATION OF THE CENTRAL APPALACHIAN FORELAND [59453]	1110
10 Dwight C. Bradley*, Timothy Kusky, Steven Tanski: RATE OF RELATIVE PLATE MOTION DURING THE TACONIC ARC-CONTINENT COLLISION [65966]	1130
SUMMARY AND DISCUSSION: Edward C. Beutner	1150

SYMPOSIUM: HYDROLOGIC TRANSPORT OF ORGANIC CHEMICALS I
Baroque Ballroom, Host Farm Resort Motel, 0900 hours

Frank J. Wobber, Presiding

INTRODUCTION: Frank J. Wobber

1 KEYNOTE PRESENTATION:	
John M. Zachara*: GEOCHEMISTRY OF ORGANIC CHEMICALS--RELATIONSHIP TO SUBSURFACE TRANSPORT AND PERSISTENCE [72886]	0910
COFFEE BREAK	
2 Arthur L. Baehr*: THEORETICAL ASPECTS OF ORGANIC CONTAMINANT TRANSPORT IN SOILS AND GROUNDWATER [72884]	1030
3 Vedat Batu*, Jimmy Ho, Joseph G. Yeasted: SOLUTE TRANSPORT IN SOILS BASED ON THE THEORY OF LINEARIZED UNSATURATED FLOW NET ANALYSIS [72883]	1100
4 Robert C. Starr*, Lynn M. Calder, Robert W. Gillham: OIL LAYER THICKNESSES IN WELLS AND ADJACENT POROUS MEDIA [72881]	1130

IGNEOUS PETROLOGY I

Lower Cabaret #1, Host Farm Resort Motel, 0800 hours

Rudolph Hon and Barbara Barreiro, Presiding

1 Mark R. Noll*, Philip R. Kyle: PETROGENETIC MODELLING OF MAGMA EVOLUTION AT MOUNT OVERLORD, ANTARCTICA [69020]	0800
2 G. Ulmer*, D. Weiss, M. Moats: THE MANTLE REDOX STORY: WHY THE DICHOTOMY? [57466]	0820
3 Anthony D. Leavitt*: OLIVINE FABRICS FROM OCEANIC ROCKS: CLUES TO MANTLE-CRUST PROCESSES [67504]	0840
4 Raymond W. Talkington*: THE PETROLOGY, PETROGENESIS, AND ORIGIN OF THE WHITE HILLS PERIDOTITE, ST. ANTHONY COMPLEX, NORTHWESTERN NEWFOUNDLAND: A LAYERED OPHIOLITE UPPER MANTLE PERIDOTITE SECTION [67708]	0900
COFFEE BREAK	
5 K. Durfee Cardoza*, R. Hon, J.C. Hepburn: PETROLOGY AND GEOCHEMISTRY OF THE PRECAMBRIAN INTERMEDIATE AND MAFIC VOLCANIC ROCKS OF THE BOSTON PLATFORM, EASTERN MASSACHUSETTS [72961]	0940
6 C.J. Smith*, R. Hon, M. Hill: GEOCHEMISTRY AND ORIGIN OF THE LATE PROTEROZOIC VOLCANO-PLUTONIC SILICIC SUITE NORTH OF BOSTON, E. MASS. [72017]	1000
7 R. Hon*, M.F. Thirlwall: NEWBURY VOLCANICS--A LATE SILURIAN ISLAND ARC(?) [66095]	1020

8 R. Duff Collins*, M. Hill, R. Hon, J.C. Hepburn: PETROGRAPHIC AND GEOCHEMICAL SUBDIVISION OF THE ANDOVER GRANITE, EASTERN MASSACHUSETTS [72013]	1040
9 Malcolm D. Hill*: INTERMEDIATE COMPOSITION PLUTONS OF THE NASHOBA TERRANE, EASTERN MASSACHUSETTS [59334]	1100
10 Barbara Barreiro*, John N. Aleinikoff: Sm-Nd AND U-Pb ISOTOPIC RELATIONSHIPS IN THE KINSMAN QUARTZ MONZONITE, NEW HAMPSHIRE [69098]	1120
11 A.T. Walker*, C.B. Sclar: SUBSOLIDUS REDOX REACTIONS IN Fe-Ti OXIDES OF THE PRESTON GABBRO, SOUTHEASTERN CONNECTICUT [58978]	1140

INNER SHELF AND COASTAL GEOLOGY

Lower Cabaret #2 and #3, Host Farm Resort Motel, 0800 hours

Benno Brenninkmeyer and S. Jeff Williams, Presiding

1 Kathryn M. Scanlon*, Harley J. Knebel: POCKMARKS ON THE FLOOR OF PENOBSCOT BAY, MAINE [66146]	0800
2 Daniel F. Belknap*: THE SUBMERGED GLACIOFLUVIAL PALEODELTA OF THE KENNEBEC RIVER, WEST-CENTRAL MAINE COAST [65839]	0820
3 R. Craig Shipp*: LATE QUATERNARY EVOLUTION OF THE WELLS EMBAYMENT, SOUTHWESTERN MAINE [65837]	0840
4 Joseph T. Kelley*, Alice R. Kelley: THE SEDIMENTARY FRAMEWORK OF SACO BAY, MAINE [65836]	0900
5 John A. Brooks*: BEDROCK GEOLOGY OF NEW HAMPSHIRE'S CONTINENTAL SHELF [69010]	0920
COFFEE BREAK	
6 Benno M. Brenninkmeyer*: FORMATION OF SWASH MARKS [72012]	1000
7 Peter S. Rosen*, Kenneth Leach: BARRIER OVERWASH ON GRAVEL BEACHES, BOSTON HARBOR, MASSACHUSETTS [71829]	1020
8 J. Richard Jones, J.J. Fisher*: ANALYSIS OF SHORELINE CHANGE AT THOMPSON ISLAND, BOSTON HARBOR, MASSACHUSETTS [72086]	1040
9 M.J. Hall*, S.D. Halsey: RESULTS OF ARTIFICIAL SEAWEED "SEASCAPE" INSTALLATION AT STONE HARBOR POINT, NEW JERSEY [67645]	1100
10 Marguerite A. Toscano*: VERTICAL SEQUENCE, BARRIER EVOLUTION AND SIGNATURE, BASED ON SEDIMENTARY ENVIRONMENT GRAIN-SIZE ANALYSIS [69952]	1120
11 S.J. Williams*, J.C. Hathaway, R. Lopez, E.C. Escowitz, A.E. Grosz, E.P. Meisburger: QUATERNARY GEOLOGIC HISTORY AND SEDIMENTARY FRAMEWORK OF THE INNER CONTINENTAL SHELF OFF SOUTHERN NEW JERSEY [70340]	1140

POSTER SESSION III: GEOCHEMISTRY, ECONOMIC AND STRUCTURAL GEOLOGY

Exhibit Hall East, Host Farm Resort Motel, 0900 hours-1100 hours

Authors will be present from 0900 to 1100 hours

Leslie J. Cox*: AN EVALUATION OF THE TIN RESOURCE POTENTIAL WITHIN THE LEWISTON 1 DEGREE X 2 DEGREE QUADRANGLE, NORTH-CENTRAL NEW HAMPSHIRE [71789]	Booth 1
P. Dillon*, R. Hon, J.C. Hepburn: PETROLOGICAL AND GEOCHEMICAL ASSESSMENT OF THE GRANODIORITE TO GRANITE TERRANE SOUTH OF BOSTON, EASTERN MASSACHUSETTS [72020]	Booth 2
Raymond W. Talkington*: A MODEL FOR THE ORIGIN OF MAFIC AND ULTRAMAFIC DIKES IN THE PERIDOTITIC UPPER MANTLE SECTION OF OPHIOLITES BASED ON RELATIONSHIPS IN THE WHITE HILLS PERIDOTITE, NEWFOUNDLAND [69091]	Booth 3
R.B. Thomas*, O.J. Gottlieb, V.M. Friberg: GEOCHEMICAL EVIDENCE FOR CUMULATE PETROGENESIS OF CHROMITITE FROM THE WOOD MINE, LANCASTER COUNTY, PA [72904]	Booth 4

- 6 George D. Guthrie*, Charles W. Burnham:
PETROLOGY AND ORIGIN OF CALC-SILICATE
BODIES FROM THE RANGELEY FORMATION, NEW
HAMPSHIRE [65964] 1530
- 7 Timothy J. Fagan*: DOES THE MASSABESIC
GNEISS COMPLEX, SOUTHEASTERN NEW
HAMPSHIRE, INCLUDE A PARTIAL MELT OF THE
BERWICK FM? [72150] 1550
- 8 K.H. Gronwald*, M.S. Rutstein, H.W. Krueger,
D.L. Conrad: AGES OF METAMORPHISM OF THE
MARTINSBURG FORMATION OF SOUTHEASTERN NEW
YORK [72608] 1610
- 9 Alice L. Hoersch*, William A. Crawford,
Kenneth D. Woodruff: A REEXAMINATION OF
THE MINE RIDGE, S.E. PA. [58818] 1630
- 10 George H. Myer*, Patrick S. Baker, Bruce R.
Cushing, Mary Louise Hill: METAMORPHISM
AND DUCTILE SHEAR ALONG THE MARTIC
"ZONE" IN SOUTHEAST PENNSYLVANIA [69035] 1650
- 11 T.M. Burke*, P.A. Candela, A.G. Wylie:
EVIDENCE FOR DETRITAL ULTRAMAFIC BODIES
IN THE EASTERN PIEDMONT OF MARYLAND [72039] 1710

GLACIAL AND QUATERNARY GEOLOGY

Monte Carlo Room, Host Farm Resort Motel, 1330 hours

James F.P. Cotter and P. Thompson Davis, Presiding

- 1 Byron D. Stone*: PROGRESS TOWARD A
QUATERNARY STRATIGRAPHY OF THE
NORTHEASTERN UNITED STATES [70290] 1330
- 2 Thomas K. Weddle*: CORRELATION OF
SUBAQUATIC GLACIAL DEPOSITS ALONG AUSTIN
STREAM, BINGHAM, MAINE, WITH TILL
STRATIGRAPHY AT NEW SHARON, MAINE [66623] 1350
- 3 George M. Haselton*: GLACIAL GEOLOGY OF
THE UPPER BAKER RIVER VALLEY, NEW
HAMPSHIRE [69015] 1410
- 4 Carl Koteff*, Frederick D. Larsen:
POSTGLACIAL UPLIFT IN THE CONNECTICUT
VALLEY, WESTERN NEW ENGLAND [70291] 1430
- 5 Paul R. Bierman*, David P. Dethier:
DEGLACIATION OF NORTHWESTERN
MASSACHUSETTS [59277] 1450
- COFFEE BREAK** 1510
- 6 Peter Clark, James S. Street*:
DEGLACIATION OF THE NORTHWESTERN
ADIRONDACK MOUNTAINS AND NORTHWARD
ENCROACHMENT OF LAKE IROQUOIS [72164] 1530
- 7 Jack C. Ridge*, William J. Brennan,
Ernest H. Muller: LATE WISCONSINAN
GLACIAL AND PALEOMAGNETIC RECORD OF THE
WESTERN MOHAWK VALLEY, N.Y. [63402] 1550
- 8 P. Jay Fleisher*: LANDFORMS AND STRATIGRAPHY
OF STAGNANT ICE DEPOSITION, APPALACHIAN
PLATEAU, CENTRAL NEW YORK STATE [70094] 1610
- 9 David P. Harper*: GLACIAL LAKES OF THE
EASTERN NEWARK BASIN, NEW JERSEY [67662] 1630
- 10 James C. Hall*, Joseph H. Hartshorn: SOME
OBSERVATIONS ON A DYNAMIC MODEL OF WATER
CONDUCTING TUNNELS IN GLACIERS, WITH SOME
IMPLICATIONS FOR ESKERS [67511] 1650

**POSTER SESSION II: STRATIGRAPHY, PALEONTOLOGY,
MATHEMATICAL GEOLOGY, GEOLOGY EDUCATION**

Exhibit Hall East, Host Farm Resort Motel,
1400 hours-1600 hours

Authors will be present from 1400 to 1600 hours

- Linda C. Gundersen*, Allison R. Palmer:
CAMBRIAN LITHOFACIES AND FAUNAL
DISTRIBUTIONS IN THE APPALACHIANS [74101] Booth 1
- John H. Way*, Robert C. Smith II: TIOGA
ASH ZONE: 6 OR MORE ASH BEDS IN THE
VALLEY AND RIDGE OF PENNSYLVANIA [70067] Booth 2
- Paul L. Richards*: LATE DEVONIAN
PALEOSOLS IN NORTH-CENTRAL PENNSYLVANIA
[57836] Booth 3
- J. Sweeney*, D. Patchen, M. Hohn:
CORRELATION AMONG DEVONIAN SHALE
PRODUCTIVITY AND COMPLETION ZONES,
STRATIGRAPHY, AND COMPLETION TECHNIQUES,
NORTHWESTERN WEST VIRGINIA [67788] Booth 4

- Linda L. York*: AMINOSTRATIGRAPHY OF TWO
CORES FROM THE EAST-CENTRAL COASTAL PLAIN
OF NORTH CAROLINA [69951] Booth 5
- Roger J. Cuffey*, Laurie S. Zimmerman,
Marshall C. Hewitt, David R. Kobluk:
MODERN BONAIRE REEF-CREST BRYOZOANS AS
PALEOECOLOGICAL MODELS--ABUNDANCES,
DIVERSITY, AND SAMPLING SCALES [72796] Booth 6
- Brenda Lint*, William R. Brice:
PETROGRAPHIC MANUAL FOR PETROLOGY
LABORATORY [68803] Booth 7
- Peter L. Guth*: DRILLBIT: INTERACTIVE
COMPUTER SIMULATION FOR TEACHING
STRUCTURAL AND HISTORICAL GEOLOGY [59222] Booth 8
- Frank A. Revetta*, P.J. Hafer, J. Bonczar:
A GRAPHICAL METHOD FOR LOCATING THE
EPICENTER AND FOCUS OF A LOCAL EARTHQUAKE
[67572] Booth 9
- William R. Brice*, Uldis Kaktins: THE
CONEMAUGH GAP. A UNIQUE GEOLOGICAL
LABORATORY [68807] Booth 10
- Alan D. Smith*: CROSS-VALIDATION
TECHNIQUES APPLIED TO HYPOTHESES TESTING
AMONG GEOTECHNICAL PARAMETERS TO MEASURE
EXTENT OF CONCURRENT VALIDITY [66791] Booth 11

FRIDAY, MARCH 15, 1985

PALEONTOLOGICAL SOCIETY SYMPOSIUM: PALEOBIOMECHANICS
Monte Carlo Room, Host Farm Resort Motel, 0800 hours

John A. Chamberlain, Jr. and Richard R. Alexander,
Presiding

- 1 Alan H. Cheetham*: MECHANICAL VS. SPATIAL
CONSTRAINTS ON ARBORESCENT GROWTH IN
EVOLUTION OF CHEILOSTOME BRYOZOANS [59212] 0800
- 2 Michael LaBarbera*, Sharon Guzik: HYDRODYNAMICS
OF FENESTELLID BRYOZOANS [72583] 0820
- 3 Richard R. Alexander*: COMPARATIVE
RESISTANCE OF BRACHIOPOD SHELL ARCHITECTURES
TO COMPRESSIONAL FORCES [59211] 0840
- 4 R.D.K. Thomas*: GROWTH, BREAKAGE, AND
RESISTANCE TO BREAKAGE IN THE SHELLS OF
BIVALVE MOLLUSCS [56725] 0900
- 5 Geerat Vermeij*: BURROWING SPEED OF
HIGH-SPIRED GASTROPODS [69905] 0920
- COFFEE BREAK** 0940
- 6 John A. Chamberlain Jr.*, Rebecca B.
Chamberlain: SEPTAL FRACTURE IN
NAUTILUS: IMPLICATIONS FOR CEPHALOPOD
PALEOBATHYMETRY [72604] 1000
- 7 Ulf Bayer*: THE BIOMECHANICAL
INTERPRETATION OF AMMONITE SEPTA [59214] 1020
- 8 Tomasz Baumiller*, Roy E. Plotnick:
FUNCTION OF WING PLATES IN
PTEROTOCRINUS [59213] 1040
- 9 R. McNeill Alexander*: LOCOMOTION OF
LARGE DINOSAURS [59220] 1100
- 10 J. Scott Turner*: THERMOREGULATION IN
EXTINCT REPTILES. WHAT MORPHOLOGY CAN
TELL US [56723] 1120

SYMPOSIUM: THE TACONIAN FLYSCH BELT OF THE APPALACHIANS
Cabaret Theater, Host Farm Resort Motel, 0800 hours

Edward C. Beutner and Peter T. Lyttle, Presiding

- INTRODUCTION:** Peter T. Lyttle 0800
- 1 Stanley C. Finney*: A RE-EVALUATION OF
THE UPPER MIDDLE ORDOVICIAN GRAPTOLITE
ZONATION OF NORTH AMERICA [59558] 0810
- 2 Steven Tanski, W.S.F. Kidd*: PROVENANCE
OF THE TACONIC FLYSCH OF NEW YORK [68433] 0830
- 3 Gary G. Lash*: DISPERSAL OF MIDDLE
ORDOVICIAN FLYSCH DEPOSITS OF EASTERN
PENNSYLVANIA [57775] 0850

ABSTRACTS with PROGRAMS 1985



20th Annual Meeting

NORTHEASTERN SECTION

The Geological Society of America

with the
Northeastern Section of the
Paleontological Society
Eastern Section of the
Society of Economic Paleontologists and Mineralogists
and the
Eastern Section of the
National Association of Geology Teachers

March 13-16, 1985
Americana Host Farm Resort Motel
Lancaster, Pennsylvania