# SYLLABUS FOR FOUR YEAR INTEGRATED B.A./B.Sc. B.Ed. COURSE

# **GEOGRAPHY**



# JAI NARAIN VYAS UNIVERSITY JODHPUR

**Note :-** There will be two theory papers carrying 75 marks each, and practical of 50 marks. Candidate will have to pass in theory and practical separately.

GEOGRAPHUY THEOTY PAPER (EXTERNAL) EXAM. SCHEME

NOTE:- Each theory paper (External) is divided in three parts i.e. section-A, Section – B, Section- C

Section A : Will consist of 10 compulsory questions. There will be two questions from each unit and answer of each question shall be limited up to 30 words. Each question will carry of 1 Mark.

Section-B : Will consist of 10 questions. Each unit will be having two questions; students will answer one question from each Unit. Answer of each question shall be limited up to 250 words. Each question will carry of 4 Marks.

Section-C : Will consist of 5 questions. Each unit will be having one question; students will answer any three questions. Answer of each question shall be limited up to 500 words. Each question will carry of 10 Marks.

# B.A./B.Sc. B.Ed. (Geography) I Year 2024 PHYSICAL GEOGRAPHY

Paper I

Duration: 3 Hrs.

Max. Marks 75

(External 60 + Internal 15)

- **Unit : 1** Origin of the Earth; Interior of the earth; Theory of Isostacy; Earth movement; Folds and faults (their types only); Rocks and their classification.
- **Unit : 2** Earthquake and Volcanoes; Major land forms: mountains, Plains, plateaus and lakes.
- **Unit : 3** Weathering and Denudation: Normal cycle of erosion; work of rivers; glaciers, ground water and winds.
- **Unit : 4** Atmosphere: Composition and structure; Insolation and Temperature; Atmospheric Pressure and winds, Humidity and precipitation, cyclones.

**Unit : 5** Hydrosphere- Temperature of Ocean water, Salinity, Ocean deposits, Ocean Tides and currents.

- Dayal, P.A Text book of Geomorphology, Shukla Book depot, Patna, 1996.
- 2. Dury, G.H The Face of the Earth, Penguins, 1980.
- 3. Ernst, W.G Earth systems Process and Issues, Cambridge University Press, 2000.
- 4. ICSSR A Survey of Research in Physical Geography, Concept, New Delhi, 1983.
- 5. Kale V and Gupta, A Element of Geomorphology, Oxford University Press, Calcutta, 2001.
- 6. Monkhouse, F.J Principles of Physical Geography, Hodder and Stoughton, London, 1960.
- 7. Pitty. A Introduction to Geomorphology, Methuen, London, 1974.
- 8. Sharma, H.S Tropical Geomorphology, Concept, New Delhi, 1987.
- 9. Singh, S Geomorphology, Prayag Pustakalaya, Allahabad, 1998.

### Paper II

## **GEOGRAPHY OF INDIA**

Duration: 3 Hrs.

Max. Marks 75 (External 60 + Internal 15)

**Unit - 1** A Study of India with reference to its physiography - Drainage, climate and climate divisions; Soils and their problem; Natural Vegetation: types and distribution; forest resources and their conservation.

- **Unit 2** Principal Minerals: Iron ore, manganese, mica, power resources: coal, Petroleum and Hydroelectricity; major Industries: Iron and steel, Cotton textile, Sugar, cement, Pulp and paper.
- Unit 3 Agriculture: Main characteristics and Problems of Indian agriculture; Principal agriculture crops: wheat, rice, sugarcane, tea and cotton: Irrigationirrigation sources, their distribution and major Irrigation Project of India: Bhakra Nangal Project, Damodar Valley corporation.
- **Unit 4** Population: Growth, Distribution and Density: Transport: Rail, Road, Water and Airways; India's foreign trade composition and trends.
- **Unit 5** Regional Geography of Kashmir valley, chhota Nagpur plateau, Malabar Coastal region and middle Ganga Plain.

- 1. Deshpande C.D India-A Regional Interpretation Northern Book Centre, New Delhi.1992.
- 2. Farmer, B.H An Introduction to South Asia, Methuen, London, 1983.
- 3. Govt. of India- India Annual Reports, 2001 Pub. Div, New Delhi, 2001.
- 4. Govt. of India- National Atlas of India, NATMO Publication, Calcutta.
- 5. Govt. of India- The Gazetteer of India. Vol I & III Publication Division, New Delhi, 1965.
- 6. Tiwari. R.C Geography of India, Pravalika Publication Allahabad,
- 7. Husain M Geography of India, Ravat Publication, Jaipur.
- 8. Deshpande C.D. India- A Regional Interpretation, Northern Book Centre, New Delhi, 1992.
- 9. Singh R.L. India A Regional Geography, National Geographical Society, India. Varanasi, 1971.
- 10. Spate; O.H.K. and Leammonth, A.T.A. India and Pakistan Land People and Economy, Methuen & Co., London, 1967.

- 11. Wadia, D.N. Geology of India, McMillan & Co., London, 1967.
- 12. Dr. Khullar India (A Comprehensive Geography) Kalyani Publication, New Delhi.
- 13. Negi Geography of India.
- 14. Govt. of India Five Year Plans of India.
- 15. Indian Year Book (Latest Edition) Publication Division, Delhi.
- 16. Irrigation Atlas of India.
- 17. Chouhan T.S. Geography of Rajasthan, Scientific Publishers, Jodhpur, 2022

#### B.A/ B.SC .B.ED Exam 2024

### **GEOGRAPHY PRACTICAL SCHEME**

### Cartography and Surveying I

#### Four Practical Periods per week per group of 20 students

Max. Marks: 50 Min marks : 18 Duration : 6 Hrs.

1.	Lab Work (Written paper)	: 02 Hours	21 Marks
2.	Record Work & Viva	: 02 Hours	9+5 = 14 Marks
3.	Field Survey &Viva Voce	: 02 Hours	10+5=15 Marks
otal Marks:			50 Marks

**Total Marks:** 

Note: Each Candidate is required to complete at least Twenty Exercise in the Record Book.

- Unit 1 Scales: plain, comparative, Time and Diagonal; methods of enlargement and reduction of maps with square methods.
- **Unit 2** Knowledge and use of meteorological instruments: Maximum and minimum Thermometer, thermograph, Stevenson's screen, Aneroid Barometer, barograph, Rain Gauge, wind Vane. Anemometer, Dry and wet Bulb Thermometer; Study and interpretation of Indian weather maps (January and July)

Unit – 3 Climatic graphs showing (i) maximum, minimum and mean temperature (ii) monthly rainfall (iii) monthly temperatures, rainfall and relative humidity (iv)Rain fall Variability (v) Histogram of rain fall (vi) Hythergraph, (vii) Climograph and (viii) Wind rose diagram.

### Unit – 4 Chain and Tape survey

- 1. ts- ih- 'kekZ & izk;ksfxd Hkwxksy] jLrksxh izdk'ku] esjBA
- 2. ,e- ,I- tSu] & izk;ksfxd Hkwxksy] lkfgR; Hkou] vkxjkA
- 3. Singh R.L. Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 4. Monk House, F.J. and Wilkinson, H.R. Map and Diagrams, Methuen, London1994.
- 5. Steers, J.K. Man Projections, University of London Press, London.
- 6. Robinson, A.H. Elements of Cartography, john Willey & Sons, New York.

# B.A. B.Ed. (Geography) II Year 2024

#### Paper I

### **HUMAN GEOGRAPHY**

Duration: 3 Hrs.

Max. Marks 75

(External 60 + Internal 15)

- **Unit 1** Definition, Scope and principles of human; its relationship with others. Social sciences, schools of human geography; Environmentalism, possibilism and neo determinism.
- Unit 2 Geographic environment and man Influence of major land forms, climate and water bodies on human activities: Forms of adaptation to environment human life in principal environments: Equatorial regions. Tropical deserts, monsoon lands, Temperate grasslands, Mediterranean lands and polar region.
- **Unite -3** Races of mankind: Criteria for classification; classification scheme of Krober, Haddon and G. Taylor; population: growth, distribution and density in the world.
- **Unite -4** Human settlement- Site forms and types; house types with special reference to India
- **Unite -5** Urbanization: Meaning, growth and trends of urbanization: Principal agglomeration of world, functional classification of Indian cities; slums and associated problems with reference to India, Problems of urbanization and remedies.

- 1. Bergwan, Edward E Human Geography; Culture, Connectin and Land Scape, Prentice-Hall, New Jersey. 1995,
- 2. Carr, M Patterns, Process and change in Human Geography, Me Millan Education London, 1987.
- 3. Gellman, J.L. Human Geography Landscapes of Human Activities. Brown and Benchmart Pub., U.S.A., 1997.
- 4. De Blij H.J. Human Geography, Culture, Society and Space, John Wiley, New York, 1996.
- MkW- dkSf'kd & ekuo Hkwxksy ds ljy fl)kUr] jLrksxh ,.M dEiuh] esjBA
- fo'oukFk f}osnh ,.M duksft;k & ekuo Hkwxksy ds fl)kUr] fdrkc egy] bykgkcknA
- 7. ekftn gqlSu & ekuo Hkwxksy] jkor ifCyds'kUl] t;iqjA
- 8. dkaLok & ekuo ,oa i;kZoj.kA

#### Paper II

### **GEOGRAPHY OF RAJASTHAN**

Duration: 3 Hrs.

Max. Marks 75

(External 60 + Internal 15)

- **Unit -1:** Physiography and physiographic division, climate, soil, Natural Vegetation.
- **Unit -2**: Population Growth, distribution and density; Tribal population distribution, principal tribes: Bhil, Meena and Garasiya; Rural settlements: growth-pattern, types and building material: tourism in Rajasthan geographical perspective.
- **Unit 3 :** Mineral resources: Distribution and reserves of important minerals; Industry: Localization factors and spatial pattern; Transportation: railways and roads, their pattern and accessibility.
- **Unit 4 :** Agriculture: Agriculture land use, Principal crops: wheat, Maize, Bajara, oil-seeds and cotton; irrigation sources, spatial aspects of development of groundwater; principal irrigation Project - Indira Gandhi canal, Chambal valley project and Mahi Bajaj sagar; Animal Husbandry: Number, spatial pattern and principal breeds
- **Unit 5 :** A detailed study of Marusthali, Aravalli region, Eastern Agro Industrial region and Hadauti region.

- 1. pkSgku] Vh- ,I- jktLFkku dk Hkwxksy] foKku izdk'ku] tks/kiqjA
- 2. HkYyk] ,y-vkj-] jktLFkku dk Hkwxksy] dqynhi izdk'ku] vtesjA
- 3. ,p-,e- IDIsuk] jktLFkku dk Hkwxksy] jktLFkku fgUnh xzUFk vdkneh] t;iqjA
- 4. fM- lh- 'kekZ o ih- 'kekZ] jktLFkku vkt rdA
- 5. ,p-,I- 'kekZ] jktLFkku dk Hkwxksy] iap'khy izdk'ku] t;iqjA
- 6. Mishra, V.C. Geography of Rajasthan, N.B.T. Delhi.
- 7. Sharma, H.S. & Sharma, M.L. Geography Facts of Rajasthan.
- 8. Chouhan T.S. Geography of Rajasthan, Scientific Publishers, Jodhpur, 2022

# **GEOGRAPHY PRACTICAL SCHEME** Cartography and Surveying II

#### Four Practical Periods per week per group of 20 students

			Max. Marks : 50
			Min marks : 18
			Duration : 6 Hrs.
4.	Lab Work (Written paper)	: 02 Hours	21 Marks
5.	Record Work & Viva	: 02 Hours	9+5 = 14 Marks
6.	Field Survey &Viva Voce	: 02 Hours	10+5=15 Marks
tal	Marks:		50 Marks

Total Marks:

Note: Each Candidate is required to complete at least Twenty Exercise in the Record Book.

- Unit-1: Methods of Depiction of relief: spot height. Hachures, Interpolation formlines and contours. of contours, Intervisibility By Drawing section with a knowledge of Dead Ground. Scale of Slope of contours and section drawing: Slopes, Conical Hill, Ridge 'V' shape valley, gorge, pass. Waterfall, saddle, plateau, Escarpment, sand dune, 'U' shaped valley, Hanging valley, cliff and lake
- Unit-2: Representation of socio- cultural and economic data by diagrams and diagrammatic maps: (I) Bar simple and compound (ii) Rectangular (iii) square (iv) Block pile (v) Wheel (vi) Circle and scale of square root and cube root
- Unit-3 : Representation of socio- cultural and economic data by dirtribution maps- choroschematic, choro-pleth, Isopleth and Dot methods
- **Unit -4 :** Plane Table Survey

- 1- ts- ih- 'kekZ & izk;ksfxd Hkwxksy] jLrksxh izdk'ku] esjBA
- 2- ,e- ,I- tSu] & izk;ksfxd Hkwxksy] lkfgR; Hkou] vkxjkA
- 3. Singh R.L. Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 4. Monk House, F.J. and Wilkinson, H.R. Map and Diagrams, Methuen, London1994.
- 5. Steers, J.K. Man Projections, University of London Press, London.
- 6. Robinson, A.H. Elements of Cartography, john Willey & Sons, New York.

# B.A. B.Ed. (Geography) III Year 2024

### Paper I

### **ECONOMIC GEOGRAPHY**

Duration: 3 Hrs.

Max. Marks 75

(External 60 + Internal 15)

**Unit-1:** Nature, scope and methods of economic geography; economic resources their classification and conservation; fundamental occupations of man; fishing and livestock raising.

**Unit- 2:** Agriculture: Subsistence, intensive commercial grain farming, plantation agriculture and mixed farming, dairying; principal agricultural crops: wheat, rice, Maize, Tea, Coffee, Rubber, Cotton, Sugarcane and sugar beet.

**Unit- 3:** Minerals: Iron ore, manganese and copper ore; sources of power: coal, Petroleum, Hydroelectricity and Nuclear.

**Unit-4:** Industries: Iron and steel, cotton Textile, pulp and paper, Major Industrial regions: The lake region of U.S.A., Ruhr basin of Germany and manufacturing belts of Japan.

**Unit-5:** Transportation: Rail, Water-major ocean routes and inland waterways of Europe, former USSR; Air factors affecting air transportation, principal air-routes of the world; International trade; Bases of International trade; barriers of trade and pattern of world trade.

- 1. Berry, J.B.L., Cooking, E.C. & Ray, D.M. Economic Geography, Prentice Hall, 1987.
- 2. Alexander, J.W. and Gibson Economic Geography, Prentice Hall of India, New Delhi, 1988.
- 3. Thoman & Corbin The Geography of Economic Activity, McGraw Hill, N.Y.
- 4. Lloyd Perter E. and Peter Dicken Location in Space- A Theoretical Approach to Economic Geography, Harper and Row, London and N.Y.
- Janaki, V.A. Economic Geography, Concept Publishing Co., New Delhi,1985.
- 6. Robinson, H. Economic Geography, Mac Donald and Evans, 1979.
- 7. Jarret, H.R. A Geography of Manufacturing, MacDonald and Evans, 1977.
- 8. Singh, K.N. Artbik Bhugol ke Mool Tatva, 1993.
- 9. Chapman, J.D. Geography and Energy, Longman, London, 1989.

#### Paper II

## **GEOGRAPHY OF WORLD - I**

### (NORTHERN CONTINENTS)

Duration: 3 Hrs.

Max. Marks 75

(External 60 + Internal 15)

- **Unit 1:** physiography, climate and Natural vegetation of Asia continent.
- **Unit 2:** Spatial distribution of population and Economic development of Asia Continent.
- **Unit 3:** Physiography, Climate and Natural vegetation of Europe continent.
- **Unit 4:** Major Power Resources, Location and distribution of Important Industries, Industrial Regions of Europe continent.
- **Unit 5:** Physiography, Climate, Natural vegetations and agricultural regions of North America.

- 1. Cole, J. A Geography of the World's Major Regios, Routledge, London, 1996.
- Deblij, H.J. Geography: Regions and concepts, John Willey, New York 1994.
- 3. Jackson, R.H. and Hudman, L.E. World Regional Geography: Issues for Today John Willey, New York, 1991.
- 4. Minshull, G.N. Western Europe, Hoddard & Stoughton, New York, 1984.
- 5. Patterson, J.H. Geography of Canada and the United States. Oxford University Press, 1985.
- 6. Shaw E.B. Anglo American A Regional Geography.
- 7. Minshull Roger Regional Geography.

- 8. James P.E. Latin America cas sed and co. London.
- 9. Minshull Roger The changing nature of Geography.
- 10.James P.E. Latin America, Cassed and Co., London.
- 11.C.B. Crassey Geography of Chine.
- 12. Trewarth G.T. Japan's Natural Resources.
- 13. Ckuokjh yky & mRrjh vesfjdk dk HkwxksyA
- 14. ,e-,I-Mh- dkSf'kd & HkkSxksfyd fopkj/kkjk,sa ,oa fof/k ra=A

### **GEOGRAPHY PRACTICAL SCHEME**

Cartography and Surveying III

Four Practical Periods per week per group of 20 students

Max. Marks : 50 Min marks : 18 Duration : 6 Hrs.

7. Lab Work (Written paper)	: 02 Hours	21 Marks
8. Record Work & Viva	: 02 Hours	9+5 = 14 Marks
9. Field Survey &Viva Voce	: 02 Hours	10+5=15 Marks
Total Marks:		50 Marks

Note: Each Candidate is required to complete at least Twenty Exercise in the Record Book.

- **Unit-1:** Study and interpretation of topographical sheets of typical areas of India; scheme of Indian topographical sheets with a complete Knowledge of their latest version
- **Unit- 2:** Profile drawing: serial, super-imposed, composite and projected; Knowledge of vertical exaggeration.
- Unit-3: Geographical construction of following map projections: cylindrical projection; simple cylindrical (Equidistant), cylindrical equal area, Mercator; conical projection: one Standard parallel, Two standard parallel, Bonne, Poly conic, Zenithal projection (Polar case only): Equidistant, equal area, Gnomonic, Stereographic, orthographic.
- **Unit- 4:** Measure of central Tendency: mean, median, mode and Standard Deviation.

Prismatic compass survey: Corrections of Bearings and closing of errors by Bowditch method.

- 1. ts- ih- 'kekZ & izk;ksfxd Hkwxksy] jLrksxh izdk'ku] esjBA
- 2. ,e- ,I- tSu] & izk;ksfxd Hkwxksy] lkfgR; Hkou] vkxjkA
- 3. Singh R.L. Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 4. Monk House, F.J. and Wilkinson, H.R. Map and Diagrams, Methuen, London1994.
- 5. Steers, J.K. Man Projections, University of London Press, London.
- 6. Robinson, A.H. Elements of Cartography, john Willey & Sons, New York.

# B.A. B.Ed. (Geography) IV Year 2024

#### Paper I

### **ENVIRONMENTAL GEOGRAPHY**

Duration: 3 Hrs.

Max. Marks75

(External 60 + Internal 15)

- **Unit-1:** Definition and scope of Environmental Geography: its relationship with other subjects of environment; man environment relationship, percipient and quality of environment.
- **Unit-2**: Ecology: definition, scopes and types; ecosystem; meaning, types; components, functioning, productivity and stability; geobiochemical cycles: water, carbon, Nitrogen and oxygen.
- **Unit-3**: Environments problems: Causes, population increase; urbanization, industrialization, transportation, pesticides and wars; environmental pollution; air, water, soil and noise, measure for control.
- **Unit-4**: Environmental hazards; ozone depletion, green house effect, El-Nino, Global warming, acid rain, floods, droughts, volcanoes, earthquakes, landslides, collapse of big dames, health hazards and energy crisis.
- Unit- 5 : Ecological basis of environmental management: sustainability of human ecosystem; conservation of Natural resources: soil, water, forests, minerals and energy; National and International efforts on environmental management; environmental education.

- 1. Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Lte. Bikaner.
- 2. Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad 380013, Inida,
- 3. Brunner R.C., 1989, Hazardous Waste Incineration, McGraw
- 4. Cunningham, W.P. Copper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmentl Encyclopedia, Jaico Publ. House, Mumavai, 1196p
- Gleick, H.P. 1993. Water in crises, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford University. Press. 473p
- 6. Jadhav, H & Bhosale, V.M. 1995. Environmental Protection Laws. Himalaya Pub. House, Delhi 284p.

#### Paper II

# GEOGRAPHY OF WORLD – II (SOUTHERN CONTINENTS & AFRICA)

Duration: 3 Hrs.

Max. Marks 75

(External 60 + Internal 15)

- **Unit 1:** Terrain Pattern, drainage, climate, Natural vegetation and regional development of Africa continent.
- **Unit 2:** Terrain Pattern, drainage, climate, Natural vegetation and regional development of South America.
- **Unit 3:** Terrain Pattern, drainage, climate, Natural vegetation and regional development of Australia.
- **Unit 4** : Antarctica Continent and Its importance in Research programmes with spl. Ref to its topography, climate, minerals and Life.
- Unit 5: Contemporary issues in World Geography: Globalization,
  W.T.O., U.N. Environment Programme (UNEP), U.N.
  Development Programme (UNDP), Environment and sustainable development.

- 15.Cole, J. A Geography of the World's Major Regios, Routledge, London, 1996.
- 16.Deblij, H.J. Geography: Regions and concepts, John Willey, New York 1994.
- 17.Jackson, R.H. and Hudman, L.E. World Regional Geography: Issues for Today John Willey, New York, 1991.
- 18.Minshull, G.N. Western Europe, Hoddard & Stoughton, New York, 1984.

- 19.Patterson, J.H. Geography of Canada and the United States. Oxford University Press, 1985.
- 20.Shaw E.B. Anglo American A Regional Geography.
- 21. Minshull Roger Regional Geography.
- 22.James P.E. Latin America cas sed and co. London.
- 23.Minshull Roger The changing nature of Geography.
- 24.Jarrot H.Q. Africa
- 25.James P.E. Latin America, Cassed and Co., London.
- 26.Stamp L.D. Africa, John Willey & Sons, New York.
- 27.Butland G.J. South Africa.
- 28. MkW- txnh'k flag ,oa MkW- oh-ih- jko- & rhu nf{k.kh egkf}i] olqU/kjk izdk'ku] xksj[kiqjA
- 29. fuxe ,I-,u- & rhu nf{k.kh egk}hiA
- 30. ,e-,I-Mh- dkSf'kd & HkkSxksfyd fopkj/kkjk,sa ,oa fof/k ra=A

### **GEOGRAPHY PRACTICAL SCHEME**

Cartography and Surveying IV

Four Practical Periods per week per group of 20 students

Max. Marks : 50 Min marks : 18 Duration : 6 Hrs.

10. Lab Work (Written paper)	: 02 Hours	21 Marks
11. Record Work & Viva	: 02 Hours	9+5 = 14 Marks
12. Field Survey &Viva Voce	: 02 Hours	10+5=15 Marks
Total Marks:	50 Marks	

Note: Each Candidate is required to complete at least Twenty Exercise in the Record Book.

- **Unit 1:** Indian clinometer Its parts, methods and determination the height of distant Points.
- Unit 2: Mathematical construction of following map projections: cylindrical projection; simple cylindrical (Equidistant), cylindrical equal area, Mercator; conical projection: one Standard parallel, Two standard parallel, Bonne, Poly conic, Zenithal projection (Polar case only): Equidistant, equal area, Gnomonic, Stereographic, orthographic.
- Unit 3: Statistical Methods: Measures of dispersion (Quartiles mean deviation and standard deviation), Variability indices, Correlation, Spearman's rank correlation and Karl Pearsons Product moment correlation, simple linear. Regression, residual from regression.
- Unit 4: Socio Economic Survey Caste Structure, Literacy rate, Creed work force, land holding ratio, occupational structure, income Gape, acute poverty analysis etc. (For every 20 students one teacher shall accompany the party).

- 1. ts- ih- 'kekZ & izk;ksfxd Hkwxksy] jLrksxh izdk'ku] esjBA
- 2. ,e- ,I- tSu] & izk;ksfxd Hkwxksy] lkfgR; Hkou] vkxjkA
- 3. Singh R.L. Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 4. Monk House, F.J. and Wilkinson, H.R. Map and Diagrams, Methuen, London1994.
- 5. Steers, J.K. Man Projections, University of London Press, London.

Robinson, A.H. – Elements of Cartography, john Willey & Sons, New York.