REFERENCES

The following list is confined to articles and books that have been referred to in the preceding text. A fuller bibliography of topos theory is to be found in Johnstone [77].

M. A. Arbib and E. G. Manes,
 [75] *Arrows, Structures, and Functors*, Academic Press, 1975.
M. Artin, A. Grothendieck and J. L. Verdier,
 [SGA4] *Théorie des topos et cohomologie étale des schémas*, Vols., 1, 2, and 3, Lecture Notes in Mathematics, Vol. 269 (1972), Vol. 270 (1972) and Vol. 305 (1973), Springer-Verlag.
Michael Barr,
 [74] Toposes without points, *J. of Pure and Applied Algebra*, 5, 1974, 265–280.
Jon Barwise,
 [75] *Admissible Sets and Structures*, Springer-Verlag, 1975.
 [77] *Handbook of Mathematical Logic* (ed.), North-Holland, 1977.
J. L. Bell and A. B. Slomson,
 [69] *Models and Ultraproducts*, North-Holland, 1969.
E. W. Beth,
 [56] Semantic construction of Intuitionistic logic, Mededelingen der Koninklijke Nederlandse Akademie van Wetenschappen, 1956, 357–388.
 [59] *The Foundations of Mathematics*, North-Holland, 1959.
D. Bergamini,
 [65] *Mathematics*, Time-Life International, 1965.
E. Bishop,
 [67] *Foundations of Constructive Analysis*, McGraw-Hill, 1967.
André Boileau,
 [75] *Types Versus Topos*, Thèse de Philosophiae Doctor, Université de Montréal, 1975.
M. J. Brockway,
 [76] *Topoi and Logic*, M.Sc. Thesis, Victoria University of Wellington, 1976.

T. G. Brook,

    [74]   *Finiteness: Another Aspect of Topoi*, Ph.D. Thesis, Australian National University, 1974.

L. E. J. Brouwer,

    [75]   *Collected Works, Vol. 1*, (A. Heyting, ed.), North-Holland, 1975.

Marta C. Bunge,

    [74]   Topos Theory and Souslin's Hypothesis, *J. of Pure and Applied Algebra*, 4, 1974, 159–187.

    [81]   Sheaves and prime model extensions, *J. of Algebra*, 68, 1981, 79–96.

Marta Bunge and Gonzalo E. Reyes,

    [81]   Boolean spectra and model completions, *Fundamenta Mathematicae*, CXIII, 1981, 165–173

Charles W. Burden,

    [78]   The Hahn–Banach theorem in a category of sheaves, *J. of Pure and Applied Algebra*, 17, 1980, 25–34.

Stanley Burris and Heinrich Werner,

    [79]   Sheaf constructions and their elementary properties, *Transactions of the American Mathematical Society*, 248, 1979, 269–309.

Fritjof Capra,

    [76]   *The Tao of Physics*, Fontana, 1976.

R. Carnap,

    [47]   *Meaning and Necessity*, University of Chicago Press, 1947.

C. C. Chang and H. J. Keisler,

    [73]   *Model Theory*, North-Holland, 1973.

Paul Cohen,

    [66]   *Set Theory and the Continuum Hypothesis*, Benjamin, 1966.

J. C. Cole,

    [73]   Categories of Sets and Models of Set Theory, in *The Proceedings of the Bertrand Russell Memorial Logic Conference*, Denmark 1971; School of Mathematics, Leeds, 1973, 351–399.

Michel Coste,

    [79]   Localisation, spectra and sheaf representation, in: Fourman, Mulvey and Scott [79], 212–238.

Johns Dauns and Karl Heinrich Hofmann,

    [68]   Representation of rings by sections, *Memoirs of the American Mathematical Society*, 83, 1968.

R. Dedekind,

[88] Was sind und was sollen die Zahlen, (1888). English translation by W. W. Beman in *Essays on the Theory of Numbers*, Chicago, Open Court, 1901.

R. Diaconescu,

[75] Axiom of choice and complementation, *Proc. of the American Mathematical Society*, 51 (1975), 176–178.

[75] Change of base for toposes with generators, *J. of Pure and Applied Algebra*, 6, 1975, 191–218.

Michael Dummett,

[59] A propositional calculus with denumerable matrix, *J. of Symbolic Logic*, 24, 1959, 97–106.

[77] *Elements of Intuitionism*, Oxford University Press, 1977.

S. Eilenberg and S. Maclane,

[45] General theory of natural equivalences, *Transactions of the American Mathematical Society*, 58, 1945, 231–294.

J. Fang,

[70] *Bourbaki*, Paideia Press, 1970.

M. C. Fitting,

[69] *Intuitionistic Logic Model Theory and Forcing*, North-Holland, 1969.

Michael P. Fourman,

[74] Connections between category theory and logic, D. Phil. thesis, Oxford University, 1974.

[77] The Logic of Topoi, in: Barwise [77], 1053–1090

M. P. Fourman, C. J. Mulvey and D. S. Scott,

[79] *Applications of Sheaf Theory to Algebra, Analysis and Topology* (eds.), Lecture Notes in Mathematics Springer-Verlag, 1979.

M. P. Fourman and D. S. Scott,

[79] Sheaves and logic, in: Fourman, Mulvey and Scott [79], 302–401.

Peter Freyd,

[72] Aspects of topoi, *Bulletin of the Australian Mathematical Society*, 7, 1972, 1–76.

K. Gödel,

[30] Die Vollständigkeit der Axiome des logischen Funktionenkalküls, *Monatshefte Math. Phys.*, 37, 349–360.

[40] *The Consistency of the Axiom of Choice and of the Generalised Continuum Hypothesis with the Axioms of Set Theory*, Annals of Mathematics Studies 3 (Princeton Univ. Press).

Robert Goldblatt,
  [77] Grothendieck Topology As Geometric Modality, *Zeitschr. f. math. Logik und Grundlagen d. Math.*, Bd. 27, 1981, 495–529.
William S. Hatcher,
  [68] *Foundations of Mathematics*, W. B. Saunders Co., 1968.
L. A. Henkin,
  [49] The completeness of the first-order functional calculus, *J. of Symbolic Logic*, 14, 1949, 159–166.
A. Heyting,
  [66] *Intuitionism*, 2nd, revised edition, North-Holland, 1966.
Horst Herrlich and George E. Strecker,
  [73] *Category Theory*, Allyn and Bacon, 1973.
D. Higgs,
  [73] A category approach to Boolean-valued set theory (unpublished).
Karl Heinrich Hofmann,
  [72] Representations of algebras by continuous sections, *Bulletin of the American Mathematical Society*, 78, 1972, 291–373.
Karl Heinrich Hofmann and John R. Liukkonen,
  [74] Recent advances in the representation theory of rings and C^*-algebras by continuous sections, *Memoirs. of the American Mathematical Society*, 148, 1974.
P. T. Johnstone,
  [77] *Topos Theory*, Academic Press, 1977.
  [77(i)] Rings, fields, and spectra, *J. of Algebra*, 49, 1977, 238–260.
Anders Kock,
  [76] Universal projective geometry via topos theory, *J. of Pure and Applied Algebra*, 9, 1976, 1–24.
A. Kock, P. Lecouturier, and C. J. Mikkelson,
  [75] Some Topos Theoretic Concepts of Finiteness, in Lawvere [75(i)], 209–283.
A. Kock and G. E. Reyes,
  [77] Doctrines in categorical logic, in: Barwise [77], 283–313.
A. Kock and G. C. Wraith,
  [71] *Elementary Toposes*, Aarhus Lecture Note Series, No. 30, 1971.
S. A. Kripke,
  [65] Semantical Analysis of Intuitionistic Logic I, in *Formal Systems and Recursive Functions*, ed. by J. N. Crossley and M. A. E. Dummett, North-Holland, 1965, 92–130.

F. W. Lawvere,

[64] An elementary theory of the category of sets, *Proc. of the National Academy of Sciences of the U.S.A.*, 51, 1964, 1506–1510.

[66] The Category of Categories as a Foundation for Mathematics, *Proc. of the Conference on Categorical Algebra*, (La Jolla, 1965), Springer-Verlag 1966, 1–20.

[69] Adjointness in foundations, *Dialectica*, 23, 1969, 281–296.

[70] Qunatifiers and Sheaves, *Actes des Congrés International des Mathématiques*, 1970, tome 1, 329–334.

[72] Introduction and ed. for *Toposes, Algebraic Geometry and Logic*, Lecture Notes in Mathematics, Vol. 274, Springer-Verlag, 1972.

[75] Continuously variable sets; Algebraic Geometry = Geometric Logic, in *Logic Colloquium '73*, ed. by H. E. Rose and J. C. Shepherdson, North-Holland, 1975, 135–156.

[75(i)] Introduction and ed. (with C. Maurer and G. C. Wraith) for *Model Theory and Topoi*, Lecture Notes in Mathematics, Vol. 445, Springer–Verlag, 1975.

[76] Variable Quantities and Variable Structures in Topoi, in *Algebra, Topology and Category Theory*, A Collection of papers in Honor of Samuel Eilenberg, Academic Press, 1976.

E. J. Lemmon,

[65] *Beginning Logic*, Nelson, 1965.

George Loullis,

[79] Sheaves and Boolean valued model theory, *J. of Symbolic Logic*, 44, 1979, 153–183.

Angus MacIntyre,

[73] Model-completeness for sheaves of structures, *Fundamenta Mathematicae*, LXXXI, 1973, 73–89.

Saunders Maclane,

[71] *Categories for the Working Mathematician*, Graduate Texts in Mathematics 5, Springer-Verlag, 1971.

[75] Sets, Topoi, and Internal Logic in Categories, in *Logic Colloquium '73*, ed. by H. E. Rose and J. C. Shepherdson, North-Holland, 1975, 119–134.

Michael Makkai and Gonzalo E. Reyes,

[MR] *First Order Categorical Logic*, Lecture Notes in Mathematics 611, Springer-Verlag, 1977.

E. G. Manes,

[75]   *Category Theory Applied to Computation and Control,* Lecture Notes in Computer Science, Vol. 25, Springer-Verlag, 1975 (ed.).

R. Mansfield,

[72]   The completeness theorem for infinitary logic, *J. of Symbolic Logic,* 37, 1972, 31–34.

J. C. C. McKinsey and A. Tarski,

[44]   The Algebra of Topology, *Annals of Mathematics,* 45, 1944, 141–191.

[46]   On Closed Elements in Closure Algebras, *Annals of Mathematics,* 47, 1946, 122–162.

[48]   Some Theorems About the Sentential Calculi of Lewis and Langford, *J. of Symbolic Logic,* 13, 1948, 1–15.

Elliot Mendelson,

[70]   *Boolean Algebra, Schaum's Outline Series,* McGraw-Hill, 1970.

William Mitchell,

[72]   Boolean Topoi and the Theory of Sets, *J. of Pure and Applied Algebra,* 9, 1972, 261–274.

A. Mostowski,

[49]   An undecidable arithmetical statement, *Fundamenta Mathematicae,* 36, 1949, 143–164.

[51]   On the rules of proof in the pure functional calculus of the First Order, *J. of Symbolic Logic,* 16, 1951, 107–111.

Christopher Mulvey,

[74]   Intuitionistic algebra and representations of rings, *Memoirs of the American Mathematical Society,* Vol. 148, 1974, 3–57.

Gerhard Osius,

[74]   Categorical set theory: a characterisation of the category of Sets, *J. of Pure and Applied Algebra,* 4, 1974, 79–119.

[75]   Logical and Set Theoretical Tools in Elementary Topoi, in: Lawvere [75(i)], 297–346.

[75(i)]   A Note on Kripke–Joyal Semantics for the Internal Language of Topoi, in: Lawvere [75(i)], 349–354.

Robert Paré

[74]   Co-limits in topoi, *Bulletin of the American Mathematical Society,* 80, 1974, 556–561.

Anna Michaelides Penk,

[75]   Two forms of the Axiom of Choice for an elementary topos, *J. of Symbolic Logic,* 40, 1975, 197–212.

R. S. Pierce,

[67] Modules over commutative regular rings, *Memoirs of the American Mathematical Society*, 70, 1967.

H. Rasiowa,

[74] *An Algebraic Approach to Non-Classical Logics*, North-Holland, 1974.

H. Rasiowa and R. Sikorski,

[63] *The Mathematics of Metamathematics*, Polish Scientific Publishers, 1963.

Gonzalo E. Reyes,

[74] From Sheaves to Logic, in *Studies in Algebraic Logic*, ed. by Aubert Diagneault, MAA Studies in Mathematics, Volume 9, 1974.

[76] *Theorie Des Modeles et Faisceaux*, Rapport no. 63, Juin 1976, Institut de Mathématique Pure et Appliquée, Université Catholique de Louvain.

Abraham Robinson,

[69] Germs, in *Applications of Model Theory to Algebra, Analysis and Probability*, ed. by W. A. J. Luxemburg; Holt, Rinehart, and Winston, 1969, 138–149.

[73] Model theory as a framework for algebra, in: Studies in Model Theory, M. D. Morley (ed.), The Mathematical Association of America, 1973, 134–157.

[75] Concerning Progress in the Philosophy of Mathematics, in *Logic Colloquium '73*, ed. by H. E. Rose and J. C. Shepherdson, North-Holland, 1975, 41–52.

Monique Robitaille-Giguère

[75] Modèles d'un Catégorie Logique dans des Topos de Pré faisceaux et d'Ensembles de Heyting, Memoire de la Maitrise ès Sciences, Université de montréal, 1975.

Dana Scott,

[65] Logic with denumerably long formulas and finite strings of quantifiers, in: *The Theory of Models*, J. W. Addison et al. (eds.), North-Holland (2nd reprint 1972), 329–341.

[67] Existence and Description in Formal Logic, in *Bertrand Russell: Philosopher of the Century*, ed. by Ralph Schoenman, George Allen and Unwin, 1967.

[68] Extending the topological interpretation to intuitionistic analysis, *Compositio Mathematica*, 20, 1968, 194–210.

[70] Extending the Topological Interpretation to Intuitionistic

Analysis, II, in *Proof Theory and Intuitionism*, A. Kino, J. Myhill and R. E. Vesley (eds.), North-Holland, 1970, 235–255.

[70(i)]   Advice on Modal Logic, in *Philosophical Problems in Logic*, ed. by Karel Lambert, Reidel, 1970, 143–173.

Krister Segerberg,
   [68]   Propositional logics related to Heyting's and Johansson's, *Theoria*, 34, 1968, 26–61.

Dana J. Schlomiuk,
   [74]   Topos di Grothendieck e topos di Lawvere e Tierney, *Rendiconti de Matematica*, 7, 1974, 513–553.

Horst Schubert,
   [72]   *Categories*, Springer-Verlag, 1972.

J. Seebach, L. Seebach, and L. Steen,
   [70]   What is a sheaf?, *American Mathematical Monthly*, 77, 1970, 681–703.

John Staples
   [71]   On constructive fields, *Proc. of London Mathematical Society*, Series 3, vol. 23 (1971), 753–768.

Lawrence N. Stout
   [76]   Topological properties of the real numbers object in a topos, *Cahiers de Topologie et Geometrie Differentielle*, vol. XVII-3, 1976, 295–326.

M. H. Stone,
   [37]   Topological representation of distributive lattices and Brouwerian logics, *Casopis pro Pestovani Matematiky a Fysiky*, 67, 1937, 1–25.

Ross Street,
   [74]   Lectures in Topos Theory, unpublished notes, Monash University, January 1974.

Stanislaw Surma,
   [73]   *Studies in the History of Mathematical Logic*, Polish Academy of Sciences, 1973.

A. Tarski,
   [36]   Der Wahrheitsbegriff in den formalisierten Sprachen, *Studia Philosophica*, 1, 1936, 261–405. (English translation in *Logic, Semantics and Metamathematics*, Oxford, 1956, 152–278).

   [38]   Der Aussagenkalkül und die Topologie, *Fundamenta Mathematicae*, 31, 1938, 103–134. (English translation: ibid, 421–454).

René Thom,

[71] "Modern" mathematics: an educational and philosophic error? *American Scientist*, Nov–Dec 1971, 695–699.

Richmond H. Thomason,

[68] On the strong semantical completeness of the intuitionistic predicate calculus, *J. of Symbolic Logic*, 33, 1968, 1–7.

Myles Tierney,

[72] Sheaf Theory and the Continuum Hypothesis, in: Lawvere [72], 13–42.

[73] Axiomatic sheaf theory: some constructions and applications, in: *Proceedings of the C.I.M.E. Conference on Categories and Commutative Algebra*, Varenna 1971, Edizioni Cremonese, 1973, 249–325.

[76] Forcing topologies and classifying topoi, in *Algebra, Topology and Category Theory: A Collection of Papers in Honor of Samuel Eilenberg*, A. Heller and M. Tierney (eds.), Academic Press, 1976, 211–219.

John Unterecker,

[73] Foreword to *Einstein and Beckett* by Edwin Schlossberg, Links Books, 1973.

D. Van Dalen,

[78] An interpretation of intuitionistic analysis, *Anals of Mathematical Logic*, vol. 13, 1978, 1–43.

Barbara Veit,

[81] A proof of the associated sheaf theorem by means of categorical logic, *J. of Symbolic Logic*, 46, 1981, 45–55.

Hugo Volger,

[75] Completeness theorem for logical categories, and Logical categories, semantical categories and topoi, in: F. W. Lawvere [75(i)], 51–100.

G. C. Wraith,

[75] Lectures on Elementary Topoi, in, Lawvere [75(i)], 114–206.

[79] Generic Galois theory of local rings, in: Fourman, Mulvey and Scott [79], 739–767.