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Heisenberg in the Atomic Age

The end of the Second World War opened a new era for science in public life. *Heisenberg in the Atomic Age* explores the transformations of science's public presence in the postwar Federal Republic of Germany. It shows how Werner Heisenberg's philosophical commentaries, circulated in the mass media, secured his role as science's public philosopher, and it reflects on his policy engagements and public political stands, which helped redefine the relationship between science and the state. With deep archival grounding, the book tracks Heisenberg's interactions with intellectuals from Heidegger to Habermas and political leaders from Adenauer to Brandt. It also traces his evolving statements about his wartime research on nuclear fission for the National Socialist regime. Working between the history of science and German history, the book's central theme is the place of scientific rationality in public life – after the atomic bomb, in the wake of the Third Reich.

Cathryn Carson is Associate Professor of History and Director of the Office for History of Science and Technology at the University of California, Berkeley. She is coeditor, with David A. Hollinger, of *Reappraising Oppenheimer: Centennial Studies and Reflections* and chair of the editorial board of *Historical Studies in the Natural Sciences*.

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Heisenberg in the Atomic Age

Science and the Public Sphere

CATHRYN CARSON
University of California, Berkeley

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Archival Abbreviations

AHQP	Archive for History of Quantum Physics microfilms, AIP and elsewhere
AIP	Niels Bohr Library, American Institute of Physics, College Park, MD Collections listed separately
ASK	Nachlass Albert Speer, BAK, N1340
ASM	Nachlass Arnold Sommerfeld, Deutsches Museum, Munich, NL 89
BAK	Bundesarchiv Koblenz B102 Bundesministerium für Wirtschaft B116 Bundesministerium für Ernährung, Landwirtschaft und Försten B136 Bundeskanzleramt B138 Bundesministerium für Bildung und Wissenschaft B196 Bundesministerium für Forschung und Technologie B227 Deutsche Forschungsgemeinschaft ZSg. Zeitgeschichtliche Sammlungen Nachlässe listed separately
BAL	Bayer-Archiv, Leverkusen
BA-MA	Bundesarchiv-Militärarchiv, Freiburg
BayASK	Bayerische Akademie der Schönen Künste, Archiv, Munich
BayHStA	Bayerisches Hauptstaatsarchiv, Munich
BBC	British Broadcasting Corporation Written Archives Center, Reading
BRM	Bayerischer Rundfunk, Fernseharchiv or Historisches Archiv, Munich
BSC	Bohr Scientific Correspondence, AHQP
BSC-Suppl	Bohr Scientific Correspondence – Supplement, Niels Bohr Archive, Copenhagen
CFWB	Sammlung Carl Friedrich von Weizsäcker, MPGB, III/ZA 54
CJBB	Nachlass Carl Jacob Burckhardt, Universitätsbibliothek Basel, NL 110

DAF	Degussa-Archiv, Frankfurt, Bestand Prentzel
DDEA	Dwight D. Eisenhower Library, Abilene, KS
DICP	David Irving, Records of the German Atomic Research Programme (microfilm), AIP, MI40
DLAM	Deutsches Literaturarchiv, Marbach
DPGB	Archiv der Deutschen Physikalischen Gesellschaft, Magnus-Haus, Berlin
DRA	Deutsches Rundfunkarchiv, Frankfurt
FJSM	Nachlass Franz Josef Strauß, Büro BMVg, Archiv für Christlich-Soziale Politik, Hanns-Seidel-Stiftung, Munich
GMB	Nachlass Georg Melchers, MPGB, III/75
HFF	Hoechst Firmengeschichte, Frankfurt
HMLM	Nachlass Heinz Maier-Leibnitz, Deutsches Museum, Munich, NL 111
HRF	Hessischer Rundfunk, Archiv, Frankfurt
HRK	Nachlass Hermann Reusch, Rheinisch-Westfälisches Wirtschaftsarchiv zu Köln, Abt. Gutehoffnungshütte (130), 401014
HStASt	Hauptstaatsarchiv Stuttgart
IRW	I. I. Rabi Papers, Library of Congress, Manuscript Division, Washington, DC
JFC	James Franck Papers, University of Chicago, Chicago, IL
KfK	Kernforschungszentrum Karlsruhe, Generallandesarchiv Karlsruhe, Bestand 69 GF Geschäftsführung INR Institut für Neutronenphysik und Reaktortechnik
KPS	Karl R. Popper Papers, Hoover Institution Archives, Stanford, CA
KWK	Nachlass Karl Wirtz, Generallandesarchiv Karlsruhe
LMC	Lise Meitner Papers, Churchill Archives Centre, Cambridge
LRK	Nachlass Ludwig Raiser, BAK, N1287
MBB	Nachlass Max Born, Staatsbibliothek Preußischer Kulturbesitz, Berlin
MDP	Max Delbrück Papers, California Institute of Technology, Pasadena, CA
MLB	Nachlass Max von Laue, MPGB, III/50
MPGB	Archiv zur Geschichte der Max-Planck-Gesellschaft, Berlin II/1A Generalverwaltung Nachlässe listed separately
NDRHam	Norddeutscher Rundfunk, Schallarchiv, Hamburg
NDRHan	Norddeutscher Rundfunk, Landesfunkhaus Niedersachsen, Archiv, Hannover
NSHStAH	Niedersächsisches Hauptstaatsarchiv, Hannover
OHB	Nachlass Otto Hahn, MPGB, III/14A
PA-AA	Politisches Archiv des Auswärtigen Amtes, Bonn

Archival Abbreviations

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PHR	Paul Harteck Papers, Rochester Polytechnic Institute, Archives and Special Collections, MC 17
PJB	Nachlass Pascual Jordan, Staatsbibliothek Preußischer Kulturbesitz, Berlin
PLC	Pauli Letter Collection, CERN Archive, Geneva
PRO: FO	Foreign Office, Public Record Office, Kew, London
RB	Radio Bremen, Schallarchiv
RMD	Nachlass Richard Merton, Hessisches Wirtschaftsarchiv, Darmstadt, Abt. 2000
RPO	Rudolf Peierls Papers, Bodleian Library, Oxford
SBSA	Nachlass Siegfried Balke, Archiv für Christlich-Demokratische Politik der Konrad-Adenauer-Stiftung, Sankt Augustin
SDRS	Süddeutscher Rundfunk, Historisches Archiv, Stuttgart
SGCP	Samuel Goudsmit Papers, AIP, AR30260
StAK	Stadtarchiv Karlsruhe
THK	Nachlass Theodor Heuss, BAK, N1221
UAG	Universitätsarchiv Göttingen
WBB	Nachlass Walther Bothe, MPGB, III/6
WDRK	Westdeutscher Rundfunk, Schallarchiv, Cologne
WGB	Dienstzimmernachlass Wolfgang Gentner, MPGB, III/68A
WGM	Nachlass Walther Gerlach, Deutsches Museum, Munich, NL 80
WHM	Werner-Heisenberg-Archiv, Max-Planck-Institut für Physik, Munich

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Citation: document identification, WHM *label*.

Other material in folders, binders, boxes, and drawers with special labels. Most labels reproduce those in the archive. For the rest, the following keywords are used:

CFvW	Prof. Dr. C.F. v. Weizsäcker, Korresp.
H	Heisenberg
MSs	drawer of drafts and manuscripts
New	stacks of folders located in a storage closet in 1996
Pauli	special Pauli folder (outside the main series, which has a similar rubric)
PI	Politik und Institutionen
PP	Physik und Philosophie
Presse	Presse, 1953–1958 (outside the main series, which has a similar rubric)
WA	Fremde wissenschaftliche Abhandlungen
ZG	Zuschriften auf die “Göttinger Erklärung”

Citations from material on the Deutscher Forschungsrat include the keyword “DFR” even when it is missing from the label in the archive.

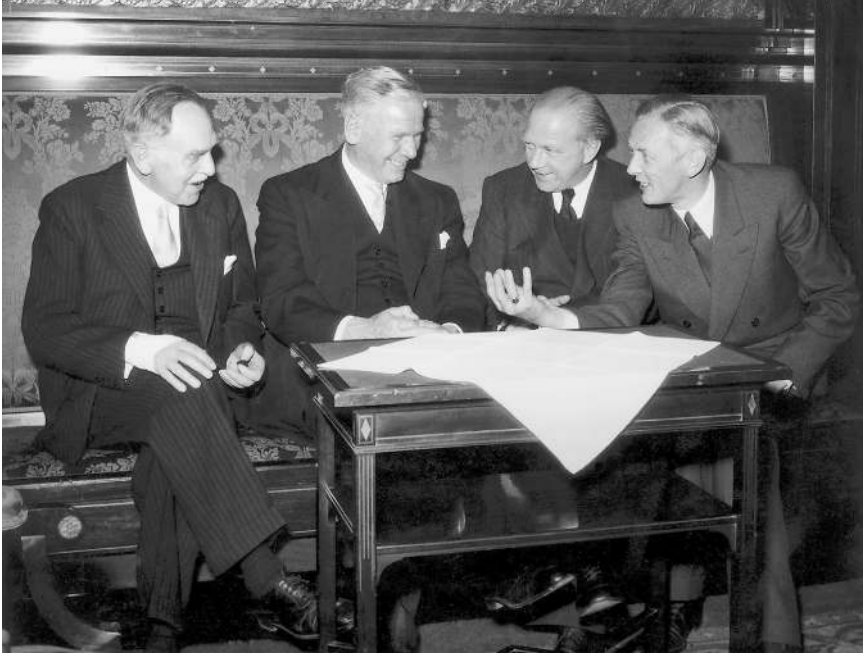
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1 Heisenberg shows Federal President Theodor Heuss around the Max Planck Institute for Physics in Göttingen in 1951, with Karl Wirtz looking on. *Source:* Max-Planck-Institut für Physik, courtesy AIP Emilio Segre Visual Archives.

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2 Max Planck Society Nobel laureates at the Society's 1952 annual assembly in a photo op with Hamburg mayor Max Brauer. From left to right: Otto Hahn, Brauer, Heisenberg, and Adolf Butenandt. *Source:* ullstein bild / The Granger Collection, New York.

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3 Federal Atomic Minister Franz Josef Strauß addresses the inaugural meeting of the German Atomic Commission in 1956. Across the table from Strauß are, from left to right, Heisenberg, Otto Haxel, and Otto Hahn. *Source:* ullstein bild / The Granger Collection, New York.

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4 At the dedication of the new Max Planck Institute for Physics in Munich in 1960, Otto Hahn, Ludwig Biermann, and Heisenberg listen to the greeting of State Secretary Staudinger, representative of the Bavarian state. *Source:* Max-Planck-Institut für Physik.

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5 Wolfgang Gentner, Otto Hahn, Atomic Minister Siegfried Balke, Adolf Butenandt, and Heisenberg at the 1962 dedication of Gentner's new Max Planck Institute for Nuclear Physics in Heidelberg. *Source:* Max-Planck-Institut für Kernphysik, Heidelberg.

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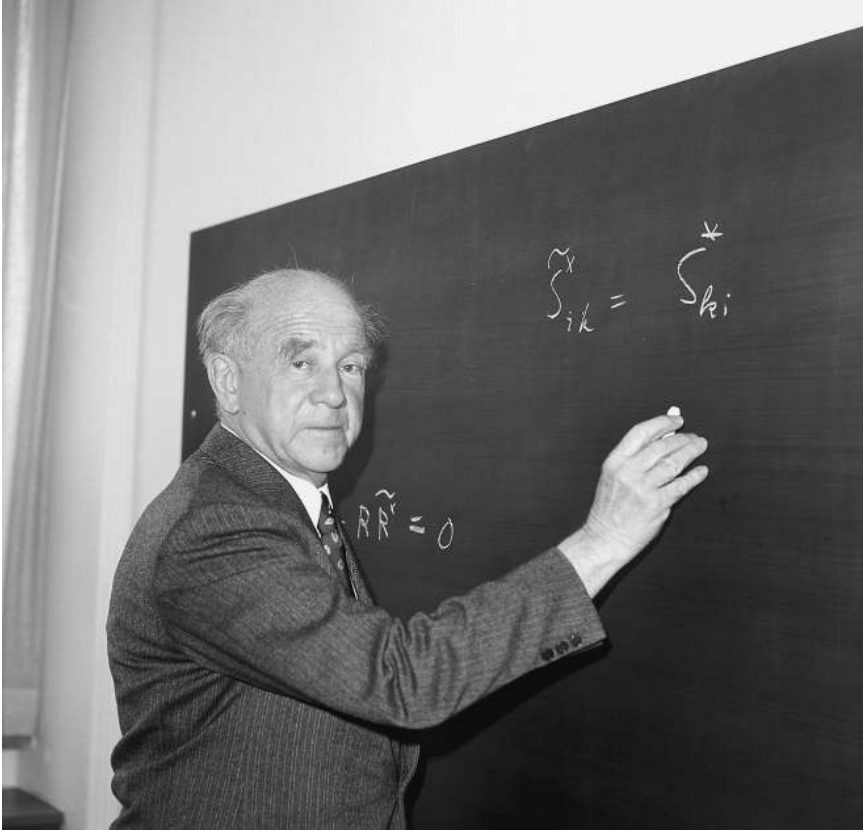
6 Heisenberg in conversation with Ernst Jünger before Martin Heidegger (holding papers) speaks on “The Question Concerning Technology” at the 1953 symposium “The Arts in the Technical Age.” *Source:* Bildarchiv Preussischer Kulturbesitz / Art Resource, New York.

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7 The 1958 Planck celebrations in West Berlin's Congress Hall as Heisenberg displays the basic equation of his unified field theory (popularly the "world formula"), as he was then writing it. *Source:* picture-alliance / dpa.

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8 Heisenberg posed at the blackboard writing equations in the 1960s. *Source:* picture-alliance / dpa.