MAKING SENSE

CONSTRUCTING KNOWLEDGE IN THE ARTS AND SCIENCES

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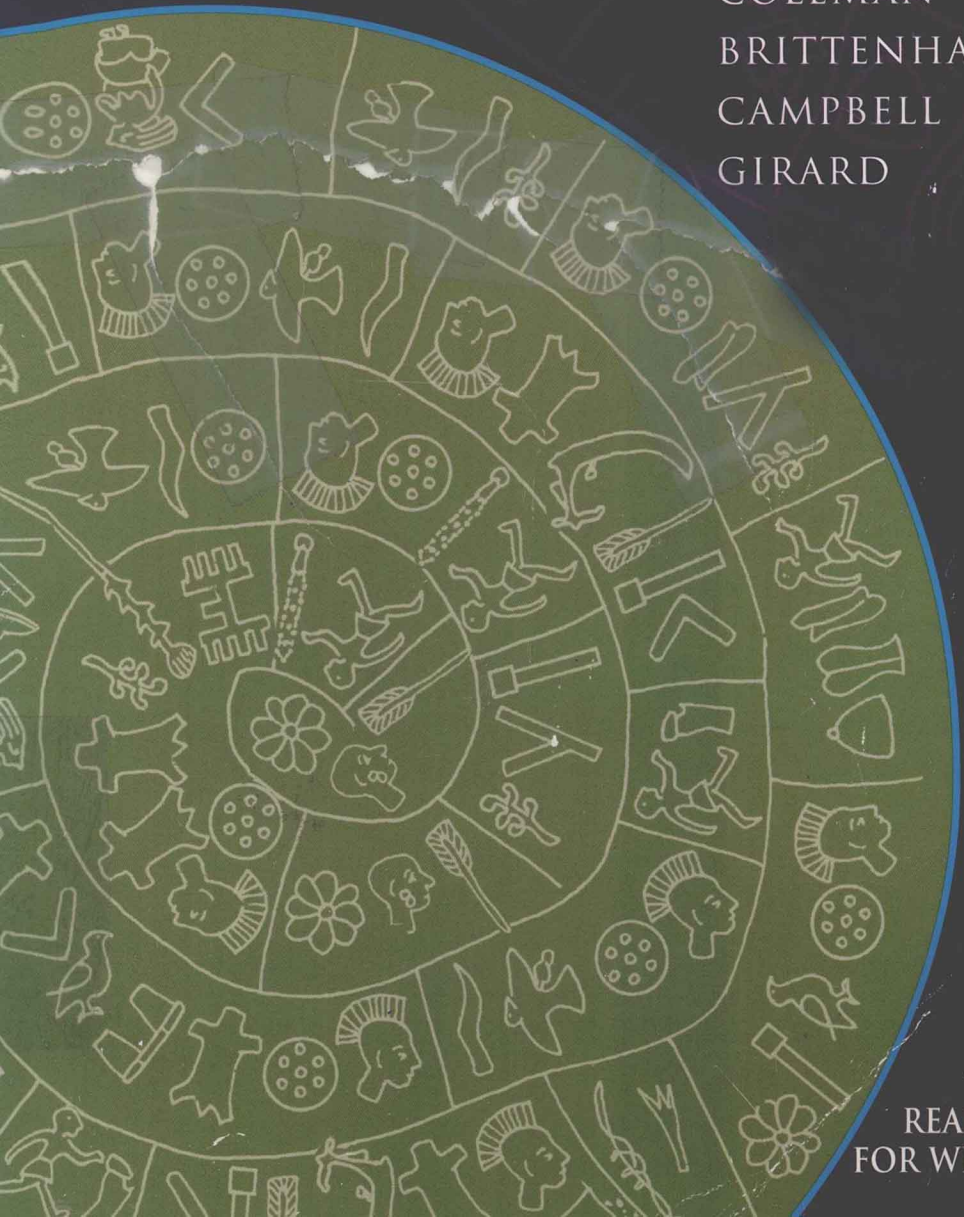
BRITTENHAM
CAMPBELL
GIRARD



READINGS FOR WRITERS

Making Sense

Constructing Knowledge in the Arts and Sciences

Bob Coleman
University of South Alabama

Rebecca Brittenham
Indiana University–South Bend

Scott Campbell
State University of New York at Stony Brook

Stephanie Girard
Spring Hill College

Houghton Mifflin Company Boston New York

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Preface

Making Sense: Constructing Knowledge in the Arts and Sciences is a collection of thirty-seven essays drawn from across the spectrum of the arts and sciences. Written for general audiences by specialists in their fields, these essays present a variety of perspectives on the central question of how knowledge is communicated across different communities of understanding. *Making Sense* balances essays on topics such as imagination and reality, the construction of personality, and the importance of public debate with histories of science, studies of technology and culture, and biological explanations of social behavior. Analyses of Disney World, comic books, and the Buffalo Bill Museum may be found side by side with discussions of cloning, Hawaiian nationalism, Grant Wood's *American Gothic*, and relations between the races.

The authors included in *Making Sense* are also a mix: we include familiar scholarly names like Gloria Anzaldúa, Clifford Geertz, Sherry Turkle, Thomas Kuhn, and Jane Tompkins; famous popular authors like Walter Mosley, Jeanette Winterson, Ralph Ellison, Annie Dillard, and Jared Diamond; and less well-known but equally accessible writers like Rebecca Solnit, Barbara Mellix, Witold Rybczynski, and Yi-Fu Tuan. Architects, physicists, historians, novelists, and critics, our authors represent a variety of disciplines and professions. We hope that the breadth of these writers' experiences helps students to understand the importance of reading and writing as means of communicating within and between groups.

To provide instructors with maximum flexibility for tailoring the course to the needs of their particular students, we have selected essays of varying lengths, styles, ideas, and approaches. All of these essays, however, demonstrate an awareness of audience, a clarity of purpose, and an engagement with ongoing debate. They make effective use of quotations, they define and apply analytical terms, and above all, they exemplify good writing.

Distinctive Features of *Making Sense*

- **Thesis-driven selections.** The many thesis-driven readings in *Making Sense* present arguments about issues that will engage and stimulate students. These argumentative readings are substantive and intellectually enriching, yet accessible, and they help students to improve their own writing, reading, and critical thinking skills.

- **Cross-disciplinary selections.** The writers in this collection, whatever their "home" discipline, write to readers beyond their discipline's borders in readable, understandable language. Their essays demonstrate the many ways that arguments can be made and supported in order to make sense to particular audiences.
- **Scientific and technological perspectives.** This broad and balanced collection includes essays from the scientific and technological disciplines and from a wide range of disciplines in the humanities. All are readable essays written for a general rather than a specialized audience.
- **Flexible organization.** *Making Sense* is well suited for courses organized by theme, discipline, or argumentative approach. Its readings are arranged alphabetically for maximum flexibility and to emphasize the book's function as a collection of provocative, scholarly essays. Alternative thematic and disciplinary tables of contents are also included in an appendix.
- **Diverse and contemporary readings.** This volume contains a wide range of disciplines, styles, and authors—including Anzaldúa, Berger, Dillard, Ellison, Kaku, Lasch, Geertz, Gould, Mosley, Sontag, Winterson, and many others. The essays were written primarily between the years of 1980 and 2000, with several classic essays from the 1960s and 1970s also included.
- **Substantial art program.** More than fifty photos and pieces of art, including one entire reading in graphic form, support and supplement the reading selections and serve as reference points for discussion and writing.
- **The Introduction.** The Introduction emphasizes the use of rhetoric as a tool for understanding how an author's purpose, persona, and audience contribute to the shaping of his or her argument.
- **"Making Sense Through Writing."** This chapter discusses how to analyze the arguments presented in the readings and how to use that analysis as a basis for generating written responses to the text. It covers the concepts of summary, paraphrase, and analysis, paying particular attention to the sufficiency and relevance of textual evidence.
- **"Making Sense Through Research."** This chapter offers suggestions to students for using the Internet and library reference sources to prepare for discussion of the readings or to develop ideas for writing about the readings. In addition, we include "Questions for Writing a Research Proposal," "Guidelines for Evaluating Internet Sources," and a brief guide to MLA and APA citation styles.

- **"Writing in the Disciplines."** This part features a series of commissioned essays by current faculty in a range of disciplines. These essays address the general requirements for writing for these disciplines and the importance of writing in a range of fields.
- **Engaging questions.** Questions that follow the readings are not of the yes/no, right/wrong variety; instead they are designed to open up discussion, to provoke responses, and to suggest a variety of ways to make sense of each essay. The questions typically build on the answers to previous questions or the results of previous discussion or activity. They are arranged in four categories:
  1. **Getting Started.** These questions are designed to promote discussion and critical thinking about the reading. They may encourage rereading with an eye to identifying key terms, rhetorical strategies, important passages or quotations. Many group activities are suggested in this section.
  2. **Writing.** Building on responses to the Getting Started questions, these questions are meant to help students not only to think about the essay in a new way but also to work out their own positions on the subject. These writing assignments may be framed as a series of questions in order to provide students with a series of alternative ways of thinking about both the text and the assignment.
  3. **Using the Library and the Internet.** These questions invite students to connect their readings to the world outside the text. By conducting research in the library or on the Internet, students can learn to challenge or extend the essay's themes and arguments or to follow up on their own responses.
  4. **Making Connections.** These questions suggest relationships between and among the essays. Using the terms of one essay as a way to read and analyze another can help students to develop an enhanced understanding of the readings or to gain a completely new perspective on an issue. Comparing and contrasting writers' approaches helps students to understand alternative rhetorical strategies. Working with more than one essay empowers students to overcome their hesitation about analyzing the work of an author who may be an expert in his or her field. By focusing on their mastery of particular readings rather than on their expertise on specific issues, these questions enable students to enter the conversation.
- **Headnotes.** Each essay is introduced with a brief headnote providing biographical information about the author and including, where necessary, an explanation of important terms or concepts. The headnotes also include URLs where students can go to learn more about the author or the topic of reading selections. We have tried as much as possible to avoid shaping the student's reading of

the text. The essays we have included present a number of options for teaching. The brevity of our notes allows you to prepare students for their reading in keeping with the instructional approach you have chosen or the connections you would like them to see with other essays in an assignment sequence.

Assignment Sequences

Assignment sequencing makes it possible to translate a pedagogical emphasis on revision into practice. Instead of reading one essay, writing a paper on it (and often tossing that paper out once it has been "finished" and graded), and then moving on to completely fresh ground, students responding to sequenced assignments are encouraged to revisit their own earlier papers just as they revisit essays they have already read and worked with.

While teachers may want to create fresh starts at one or two points in the semester, we have found that by and large students produce better work when they are able to incorporate familiar readings and build upon familiar writing processes. In fact, studies of basic writers have shown that students struggling to produce better writing can often be hampered by hypercritical self-editing: Such students often cross out or erase material before they have had the chance to develop an idea, and they throw out drafts of papers before they have a chance to recognize and capitalize on improved skills. Similarly, if students feel they failed to "get" a previous reading, they will often try to bury the failure and move on rather than learning that a return to that same reading through a fresh perspective (sometimes much later in the semester) often provides greater and enriched understanding.

Sequenced assignments allow students to reread and rethink previous essays from new standpoints; they encourage students to rework their own papers from reconsidered, even transformed positions. More than this, sequenced assignments mirror the way that we often appropriate new knowledge—by using the familiar as a way to understand, to make a connection to the unfamiliar. In addition, the new text often helps students to recognize the assumptions that shaped their earlier readings and to learn the power of an alternate interpretive approach.

Each assignment sequence asks students to use one reading as a way to reapproach one or more previous readings, or to use the previous reading(s) to provide an interpretive approach to the new reading. This process of creating connections between texts helps students to understand the interpretive choices involved in reading and writing. It also helps students to break new ground, to find unexpected points of contact between writers, and in that process of negotiation to develop their own committed points of view on an issue. Further,

assignments that involve connecting the ideas of two or more writers make particular sense within scholarly communities where essays are rarely limited to an engagement with a single writer, where the conventions of citation, allusion, and footnoting demand that each new conversation make reference to traditions of thought and ongoing conversations about an issue.

Instructor's Manual

A separate Instructor's Manual includes teaching tips and strategies for making the best use of *Making Sense* based on the editors' own experiences in using these essays in composition classrooms at Indiana University at South Bend, the University of South Alabama, Rutgers University, and Montclair State University. The entries provided for each essay include a list of critical vocabulary, suggestions for points of entry and emphasis, a discussion of student responses to the essay, and advice on linking essays in sequences. We also identify selections that work well at the beginning of the semester or the beginning of the sequence.

Making Sense Companion Web Site

The *Making Sense* companion web site provides alternative tables of contents, sample syllabi, sample assignments, research links, Web-based activities, and links to additional visuals that complement essays in *Making Sense* and an e-mail address where you can send us your comments, questions, and ideas.

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Final Note

In compiling and writing *Making Sense*, we recognize that controversies within composition studies, departments of English, divisions of Humanities, and universities as a whole are signs of a fundamental shift in ways of defining what it means to have a college education.

Increasingly, students are vocationally oriented, pursuing not an education but a career. Simultaneously, however, business and industry executives are searching for employees who combine specialized knowledge with excellent writing and oral communication skills, employees who are flexible and able to change as the organization changes. In an effort to respond to these conflicting needs, we have created a composition reader that challenges students not only to think "outside the box," i.e., to examine and investigate ideas rather than simply to absorb and re-present facts, but also to make sense of "the box" for themselves.

B. C.
R. B.
S. C.
S. G.

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GLORIA ANZALDÚA, "Chicana Artists: Exploring *Nepantla, el Lugar de la Frontera*" *47*

Nepantla is the Nahuatl word for an in-between state, that uncertain terrain one crosses when moving from one place to another, when changing from one class, race, or gender position to another, when traveling from the present identity into a new identity.

JOHN BERGER, "The Changing View of Man in the Portrait" *59*

We can no longer accept that the identity of a man can be adequately established by preserving and fixing what he looks like from a single viewpoint in one place. (One might argue that the same limitation applies to the still photograph, but as we have seen, we are not led to expect a photograph to be as conclusive as a painting.) Our terms of recognition have changed since the heyday of portrait painting.

SVEN BIRKERTS, "The Owl Has Flown" *72*

What is true of art is true of serious reading as well. Fewer and fewer people, it seems, have the leisure or the inclination to undertake it. And true reading is hard. Unless we are practiced, we do not just crack the covers and slip into an alternate world. We do not get swept up as readily as we might be by the big-screen excitements of film. But if we do read perseveringly we make available to ourselves, in a most portable form, an ulterior existence.

WANDA M. CORN, "The Birth of a National Icon: Grant Wood's *American Gothic*" *80*

In its style, imagery, and sources, . . . *American Gothic* grew out of Wood's midwestern experience and earned him the title of "regionalist" painter. To the artist's considerable surprise, the painting won immediate fame, a fame that continues unabated today. It is not hard to understand why.

SCOTT DEVEAUX, "Progress and the Bean" *103*

Hawkins's decline in status is not unexpected. A history of style usually boils down to a history of innovation: novel techniques that stand out against the background of common practice and can be shown, after the fact, to point to the future. Only stylistic "advances" give shape and momentum to such a historical narrative. It follows that the cutting edge must be kept sharp. With jazz, the pace of change has been particularly brisk.

JARED DIAMOND, "Necessity's Mother" *115*

The starting point for our discussion is the common view expressed in the saying, "Necessity is the mother of invention." That is, inventions supposedly arise when a society has an unfulfilled need: some technology is widely recognized to be unsatisfactory or limiting. . . . In fact, many or most inventions were developed by people driven by curiosity or by a love of tinkering, in the absence of any initial demand for the product they had in mind.

ANNIE DILLARD, "Seeing" *139*

Why didn't someone hand those newly sighted people paints and brushes from the start, when they still didn't know what anything was? Then maybe we all could see color-patches too, the world unraveled from reason, Eden before Adam gave names. The scales would drop from my eyes; I'd see trees like men walking; I'd run down the road against all orders, hallooing and leaping.

JULIE ENGLISH EARLY, "The Spectacle of Science and Self: Mary Kinglsey" *156*

Above all, [Mary] Kingsley's work reflects a belief not only in the fundamental narrativity of science, but in its constructed nature and voice. Demanding that her audiences attend to the person in the work, Kingsley entangles the stories of self and science to draw attention to a process of learning rather than remote pronouncements of science's definitive conclusions.

RALPH ELLISON, "The Little Man at Chehaw Station" *178*

With a shock of recognition I joined them in appreciation of the hilarious American joke that centered on the incongruities of race, economic status and culture. My sense of order restored, my appreciation of the arcane ways of American cultural possibility was vastly extended.

STUART EWEN, "The Marriage Between Art and Commerce" *203*

In the commercial world of style, the fundamental assumption underlying the "shaping of everyday life" is that life must visibly change, every day. . . . What will appear next is not always predictable. That *something new* will appear is entirely predictable. "Style obsolescence," reported a major industrial design firm in 1960, "is the *sine qua non* of product success."

NORTHROP FRYE, "The Motive for Metaphor" *216*

Science learns more and more about the world as it goes on: it evolves and improves. A physicist today knows more physics than Newton did, even if he's not as great a scientist. But literature begins with the possible model of experience, and what it produces is the literary model we call the classic. Literature doesn't evolve or improve or progress.

CLIFFORD GEERTZ, "Common Sense as a Cultural System" *227*

Common sense is not what the mind cleared of cant spontaneously apprehends; it is what the mind filled with presuppositions . . . concludes.

STEPHEN JAY GOULD, "The Smoking Gun of Eugenics" *245*

Bad and biased arguments can have serious, even deadly, consequences.

ZITA INGHAM, "Landscape, Drama, and Dissensus: The Rhetorical Education of Red Lodge, Montana" *259*

Discussion, argument, legal actions, and decrees replace shoot-outs. Finding a better way to live and to manage environmental issues such as land use rests on language, on the use of language to discover, initiate, persuade, understand, anger, conciliate: on rhetoric.

MICHIO KAKU, "Second Thoughts: The Genetics of a Brave New World?" 279

In a democracy, only informed debate by an educated citizenry can make the mature decisions about a technology so powerful that we can dream of controlling life itself.

THOMAS KUHN, "The Historical Structure of Scientific Discovery" *303*

I conclude that we need a new vocabulary and new concepts for analyzing events like the discovery of oxygen. Though undoubtedly correct, the sentence "Oxygen was discovered" misleads by suggesting that discovering something is a single simple act unequivocally attributable, if only we knew enough, to an individual and an instant in time.

CHRISTOPHER LASCH, "The Lost Art of Argument" *315*

Since the public no longer participates in debates on national issues, it has no reason to inform itself about civic affairs. It is the decay of public debate, not the school system (bad as it is), that makes the public ill informed, notwithstanding the wonders of the age of information. When debate becomes a lost art, information, even though it may be readily available, makes no impression.

RICHARD C. LEWONTIN, "Science as Social Action" *326*

So any rational environmental movement must abandon the romantic and totally unfounded ideological commitment to a harmonious and balanced world in which the environment is preserved and turn its attention to the real question, which is, how do people want to live and how are they to arrange that they live that way?

EMILY MARTIN, BJORN CLAESON, WENDY RICHARDSON, MONICA SCHOCH-SPANA, AND KAREN-SUE TAUSSIG, "Scientific Literacy, What It Is, Why It's Important, and Why Scientists Think We Don't Have It: The Case of Immunology and the Immune System" *340*

In our social anthropological research we are uncovering another picture of what science literacy might consist of by asking nonscientists, at all educational levels and from a variety of ethnic and socioeconomic settings, to tell us in their own terms what they know about health and their bodies, in particular about immunity and the immune system.

SCOTT MCCLOUD, "Setting the Record Straight" *359*

If people failed to **UNDERSTAND** comics, it was because they defined what comics could be too narrowly.

ERIN MCGRAW, "Bad Eyes" *383*

My inability to see the physical world had infected my mind: I had learned to deceive myself using my mind's eye, just as my real eyes had been deceiving me for years.

BARBARA MELLIX, "From Outside, In" *394*

Like my children, I grew up speaking what I considered two distinctly different languages—black English and standard English (or as I thought of them then, the ordinary everyday speech of "country" coloreds and "proper" English)—and in the process of acquiring these languages, I developed an understanding of when, where, and how to use them. But unlike my children, I grew up in a world that was primarily black.

WALTER MOSLEY, "For Authors, Fragile Ideas Need Loving Every Day" *405*

Nothing we create is art at first. It's simply a collection of notions that may never be understood. Returning every day thickens the atmosphere. Images appear. Connections are made. But even these clearer notions will fade if you stay away more than a day.

WALKER PERCY, "The Loss of the Creature" *409*

A young Falkland Islander walking along a beach and spying a dead dogfish and going to work on it with his jackknife has, in a fashion wholly unprovided in modern educational theory, a great advantage over the Scarsdale high-school pupil who finds the dogfish on his laboratory desk.

WITOLD RYBCZYNSKI, "Designs for Escape" *425*

Building a house for yourself is exciting, because of the feeling of possibility that a new house carries, and because creating shelter is a basic human urge, whether or not you are an architect.

REBECCA SOLNIT, "Aerobic Sisyphus and the Suburbanized Psyche" *434*

Ordinary Americans now perceive, value, and use time, space, and their own bodies in radically different ways than they did before. Walking still covers the ground between cars and buildings and the short distances within the latter, but walking as a cultural activity, as a pleasure, as travel, as a way of getting around, is fading, and with it goes an ancient and profound relationship between body, world, and imagination.

NANCY SOMMERS, "I Stand Here Writing" *451*

Many of the students who come to my classes have been trained to collect facts; they act as if their primary job is to accumulate enough authorities so that there is no doubt about the "truth" of their thesis. They most often disappear behind the weight and permanence of their borrowed words, moving their pens, mouthing the words of others, allowing sources to speak through them unquestioned, unexamined.

SUSAN SONTAG, "In Plato's Cave" *462*

Photography implies that we know about the world if we accept it as the camera records it. But this is the opposite of understanding, which starts from *not* accepting the world as it looks. All possibility of understanding is

rooted in the ability to say no. Strictly speaking, one never understands anything from a photograph.

WARREN I. SUSMAN, "'Personality' and the Making of Twentieth-Century Culture" *479*

[W]e can best understand modern cultural developments in all forms if we see and define the particular vision of the self basic to each cultural order. But my fundamental interest in the culture of character lies in the signs of its disappearance and the resulting call for a new modal type best suited to carry out the mission of a newer cultural order.

JANE TOMPKINS, "At the Buffalo Bill Museum, June 1988" *496*

Buffalo Bill was a person who inspired other people. What they saw in him was an aspect of themselves. It really doesn't matter whether Cody was as great as people thought him or not, because what they were responding to when he rode into the arena, erect and resplendent on his charger, was something intangible, not the man himself, but a possible way of being.

CHRISTOPHER P. TOUMEY, "Science in an Old Testament Style" *516*

[I]f the symbols of science are being used to endorse or legitimize certain values and meanings but not the values and meanings of science, then to what exactly do these symbols refer? What do the symbols of science convey, if not the content of science? What are the nonscientific ideas that are being expressed by means of scientific symbols?

HAUNANI-KAY TRASK, "From a Native Daughter" *524*

None of the historians had ever learned our mother tongue. They had all been content to read what Europeans and Americans had written. But why did scholars, presumably well-trained and thoughtful, neglect our language? Not merely a passageway to knowledge, language is a form of knowing by itself.

YI-FU TUAN, "Earth: Nature and Culture" *535*

What do the words "reality" and "real" mean? Although philosophers do not find it easy to agree on an answer, ordinary thinking people have little difficulty using these words in everyday talk, often in conjunction with their opposites, "fantasy" and "unreal." Such talk, when looked at closely, shows how the meaning of "real" shifts, even radically, as the context changes.

SHERRY TURKLE, "The Triumph of Tinkering" *553*

But even when women felt free to experiment with soft mastery, they faced a special conflict. Tinkering required a close encounter with the computer. But this violated a cultural taboo about being involved with "machines" that fell particularly harshly on women. When I was a young girl, I assembled the materials to build a crystal radio. My mother, usually encouraging, said, "Don't touch it, you'll get a shock." Her tone, however, did not communicate fear for my safety, but distaste.

PATRICIA J. WILLIAMS, "The Ethnic Scarring of American Whiteness" *568*

Once I developed an eye and an ear for it, I began to see the vast body of sitcoms, talk shows, editorials, and magazines as not just "mainstream," but class-biased and deeply hypocritical. The most interesting aspect of this

hypocrisy rests, I think, in the wholesale depiction of "poor whites" as bigoted, versus the enlightened, ever-so-*liberal* middle and upper classes who enjoy the privilege of thinking of themselves as "classless."

SUSAN WILLIS, "Disney World: Public Use/Private State" *579*

What's most interesting about Disney World is what's not there. Intimacy is not in the program even though the architecture includes several secluded nooks, gazebos, and patios. During my five-day stay, I saw only one kiss—and this a husbandly peck on the cheek. Eruptions of imaginative play are just as rare.

JEANETTE WINTERSON, "Imagination and Reality" *593*

We have to admit that the arts stimulate and satisfy a part of our nature that would otherwise be left untouched and that the emotions art arouses in us are of a different order to those aroused by experience of any other kind.

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