

# Ontogeny And Phylogeny Stephen Jay Gould

THANK YOU UNQUESTIONABLY MUCH FOR DOWNLOADING **ONTOGENY AND PHYLOGENY STEPHEN JAY GOULD** .MAYBE YOU HAVE KNOWLEDGE THAT, PEOPLE HAVE LOOK NUMEROUS TIMES FOR THEIR FAVORITE BOOKS LIKE THIS ONTOGENY AND PHYLOGENY STEPHEN JAY GOULD , BUT END UP IN HARMFUL DOWNLOADS.

RATHER THAN ENJOYING A FINE EBOOK AS SOON AS A MUG OF COFFEE IN THE AFTERNOON, THEN AGAIN THEY JUGGLED WHEN SOME HARMFUL VIRUS INSIDE THEIR COMPUTER. **ONTOGENY AND PHYLOGENY STEPHEN JAY GOULD** IS AFFABLE IN OUR DIGITAL LIBRARY AN ONLINE ENTRANCE TO IT IS SET AS PUBLIC HENCE YOU CAN DOWNLOAD IT INSTANTLY. OUR DIGITAL LIBRARY SAVES IN COMBINATION COUNTRIES, ALLOWING YOU TO GET THE MOST LESS LATENCY EPOCH TO DOWNLOAD ANY OF OUR BOOKS BEHIND THIS ONE. MERELY SAID, THE ONTOGENY AND PHYLOGENY STEPHEN JAY GOULD IS UNIVERSALLY COMPATIBLE LIKE ANY DEVICES TO READ.

**An Urchin in the Storm** - STEPHEN JAY GOULD 1988

*The Structure of Evolutionary Theory* - STEPHEN JAY GOULD 2002-03-21

THE WORLD'S MOST REVERED AND ELOQUENT INTERPRETER OF EVOLUTIONARY IDEAS OFFERS HERE A WORK OF EXPLANATORY FORCE UNPRECEDENTED IN OUR TIME—A LANDMARK PUBLICATION, BOTH FOR ITS HISTORICAL SWEEP AND FOR ITS SCIENTIFIC VISION. WITH CHARACTERISTIC ATTENTION TO DETAIL, STEPHEN JAY GOULD FIRST DESCRIBES THE CONTENT AND DISCUSSES THE HISTORY AND ORIGINS OF THE THREE CORE COMMITMENTS OF CLASSICAL DARWINISM: THAT NATURAL SELECTION WORKS ON ORGANISMS, NOT GENES OR SPECIES; THAT IT IS ALMOST EXCLUSIVELY THE MECHANISM OF ADAPTIVE EVOLUTIONARY CHANGE; AND THAT THESE CHANGES ARE INCREMENTAL, NOT DRASTIC. NEXT, HE EXAMINES THE THREE CRITIQUES THAT CURRENTLY CHALLENGE THIS CLASSIC DARWINIAN EDIFICE: THAT SELECTION OPERATES ON MULTIPLE LEVELS, FROM THE GENE TO THE GROUP; THAT EVOLUTION PROCEEDS BY A VARIETY OF MECHANISMS, NOT JUST NATURAL SELECTION; AND THAT CAUSES OPERATING AT BROADER SCALES, INCLUDING CATASTROPHES, HAVE FIGURED PROMINENTLY IN THE COURSE OF EVOLUTION. THEN, IN A STUNNING TOUR DE FORCE THAT WILL LIKELY STIMULATE DISCUSSION AND DEBATE FOR DECADES, GOULD PROPOSES HIS OWN SYSTEM FOR INTEGRATING THESE CLASSICAL COMMITMENTS AND CONTEMPORARY CRITIQUES INTO A NEW STRUCTURE OF EVOLUTIONARY THOUGHT. IN 2001 THE LIBRARY OF CONGRESS NAMED STEPHEN JAY GOULD ONE OF AMERICA'S EIGHTY-THREE LIVING LEGENDS—PEOPLE WHO EMBODY THE “QUINTESSENTIALLY AMERICAN IDEAL OF INDIVIDUAL CREATIVITY, CONVICTION, DEDICATION, AND EXUBERANCE.” EACH OF THESE QUALITIES FINDS FULL EXPRESSION IN THIS PEERLESS WORK, THE LIKES OF WHICH THE SCIENTIFIC WORLD HAS NOT SEEN—AND MAY NOT SEE AGAIN—FOR WELL OVER A CENTURY.

**Time's Arrow, Time's Cycle** - STEPHEN JAY GOULD 1988-01-01

RARELY HAS A SCHOLAR ATTAINED SUCH POPULAR ACCLAIM MERELY BY DOING WHAT HE DOES BEST AND ENJOYS MOST. BUT SUCH IS STEPHEN JAY GOULD'S COMMAND OF PALEONTOLOGY AND EVOLUTIONARY THEORY, AND HIS GIFT FOR BRILLIANT EXPLICATION, THAT HE HAS BROUGHT DUST AND DEAD BONES TO LIFE, AND DEVELOPED AN IMMENSE FOLLOWING FOR THE SEEMING ARCANA OF THIS FIELD. IN *Time's Arrow, Time's Cycle* HIS SUBJECT IS NOTHING LESS THAN GEOLOGY'S SIGNAL CONTRIBUTION TO HUMAN THOUGHT—THE DISCOVERY OF “DEEP TIME,” THE VASTNESS OF EARTH'S HISTORY, A HISTORY SO ANCIENT THAT WE CAN COMPREHEND IT ONLY AS METAPHOR. HE FOLLOWS A SINGLE THREAD THROUGH THREE DOCUMENTS THAT MARK THE TRANSITION IN OUR THINKING FROM THOUSANDS TO BILLIONS OF YEARS: THOMAS BURNET'S FOUR-VOLUME SACRED THEORY OF THE EARTH (1680–1690), JAMES HUTTON'S THEORY OF THE EARTH (1795), AND CHARLES LYELL'S THREE-VOLUME PRINCIPLES OF GEOLOGY (1830–1833). GOULD'S MAJOR THEME IS THE ROLE OF METAPHOR IN THE FORMULATION AND TESTING OF SCIENTIFIC THEORIES—IN THIS CASE THE INSIGHT PROVIDED BY THE OLDEST TRADITIONAL DICHOTOMY OF JUDEO-CHRISTIAN THOUGHT: THE DIRECTIONALITY OF TIME'S ARROW OR THE IMMANENCE OF TIME'S CYCLE. GOULD FOLLOWS THESE METAPHORS THROUGH THESE THREE GREAT DOCUMENTS AND SHOWS HOW THEIR INFLUENCE, MORE THAN THE EMPIRICAL OBSERVATION OF ROCKS IN THE FIELD, PROVOKED THE SUPPOSED DISCOVERY OF DEEP TIME BY HUTTON AND LYELL. GOULD BREAKS THROUGH THE TRADITIONAL “CARDBOARD” HISTORY OF GEOLOGICAL TEXTBOOKS (THE PROGRESSIVE MARCH TO TRUTH INSPIRED BY MORE AND BETTER OBSERVATIONS) BY SHOWING THAT BURNET, THE VILLAIN OF CONVENTIONAL ACCOUNTS, WAS A RATIONALIST (NOT A THEOLOGICALLY DRIVEN MIRACLE-MONGER) WHOSE RICH RECONSTRUCTION OF EARTH HISTORY EMPHASIZED THE NEED FOR BOTH TIME'S ARROW (NARRATIVE HISTORY) AND TIME'S CYCLE (IMMANENT LAWS), WHILE HUTTON AND LYELL, OUR TRADITIONAL HEROES, DENIED THE RICHNESS OF HISTORY BY THEIR EXCLUSIVE FOCUS UPON TIME'S ARROW.

**The Book of Life** - STEPHEN JAY GOULD 1995-05

A LAVISHLY ILLUSTRATED HISTORY MAKES USE OF THE BEST NEW RESEARCH AND DELICATE PAINTINGS AND LINE DRAWINGS TO EXAMINE THE VARIED FORMS OF LIFE OVER THE PAST HALF A BILLION YEARS AND THEIR RELATIONSHIP TO THE ENVIRONMENT. REPRINT.

**Ontogeny and Phylogeny** - STEPHEN JAY GOULD 1977

“ONTOGENY RECAPITULATES PHYLOGENY” WAS HAECKEL'S ANSWER TO 19TH-CENTURY BIOLOGY'S MOST VEXING QUESTION: WHAT IS THE RELATIONSHIP BETWEEN INDIVIDUAL DEVELOPMENT AND THE EVOLUTION OF SPECIES AND LINEAGES? GOULD DOCUMENTS THE HISTORY OF THE IDEA OF RECAPITULATION FROM ITS FIRST APPEARANCE AMONG THE PRE-SOCRATICS TO ITS FALL IN THE EARLY 20TH CENTURY.

**The Book of Life** - STEPHEN JAY GOULD 2001

“THE BOOK OF LIFE BUILDS A BRIDGE OF KNOWLEDGE, BRINGING THE FRONTIERS OF SCIENCE AND WHAT WE KNOW OF LIFE'S HISTORY TO ALL OF US WHO WISH TO COME CLOSER TO OUR BEGINNINGS AND KNOW MORE OF WHO WE ARE.”--BOOK JACKET.

**Dinosaur in a Haystack** - STEPHEN JAY GOULD 2011-10

FROM FADS TO FUNGUS, BASEBALL TO BEESWAX, GOULD ALWAYS CIRCLES BACK TO THE GREAT THEMES OF TIME, CHANGE, AND

HISTORY, CARRYING READERS HOME TO THE CENTERING THEME OF EVOLUTION.

**Adam's Navel** - STEPHEN JAY GOULD 1995

**The Hedgehog, the Fox, and the Magister's Pox** - STEPHEN JAY GOULD 2011-10

IN HIS FINAL BOOK, GOULD OFFERS A SURPRISING AND NUANCED STUDY OF THE COMPLEX RELATIONSHIP BETWEEN OUR TWO GREAT WAYS OF KNOWING: SCIENCE AND THE HUMANITIES, TWIN REALMS OF KNOWLEDGE THAT HAVE BEEN DIVIDED AGAINST EACH OTHER FOR FAR TOO LONG.

**Rocks of Ages** - STEPHEN JAY GOULD 1999

WITH CHARACTERISTIC ELEGANCE AND AFFECTING PORTRAITS OF SCIENTISTS AND MORAL LEADERS WRESTLING WITH MATTERS OF FAITH AND REASON, GOULD MAKES VIVID THE ARGUMENT THAT INDIVIDUALS AND CULTURES MUST CULTIVATE BOTH A LIFE OF THE SPIRIT AND A LIFE OF RATIONAL INQUIRY IN ORDER TO EXPERIENCE THE FULLNESS OF BEING HUMAN.

**Conversations about the End of Time** - UMBERTO ECO 2001

THERE IS NOTHING SPECIAL ABOUT THE YEAR 2000, YET THE START OF THE THIRD MILLENNIUM PROVED A FOCUS FOR MANY DEEP ANXIETIES AND EXPECTATIONS. FOUR OF THE WORLD'S BOLDEST AND MOST CELEBRATED THINKERS OFFER A VAST RANGE OF INSIGHTS INTO HOW WE MAKE SENSE OF TIME: PALEONTOLOGIST STEPHEN JAY GOULD ON DATING THE CREATION, EVOLUTIONARY DEEP TIME, AND THE NEED FOR ECOLOGICAL ETHICS ON A HUMAN SCALE; UMBERTO ECO, NOVELIST, MEDIEVALIST, AND WEB FANATIC, ON THE BRAVE NEW WORLD OF CYBERSPACE AND ITS LIKELY IMPACT ON MEMORY, CULTURAL CONTINUITY, AND ACCESS TO KNOWLEDGE; SCREENWRITER JEAN-CLAUDE CARRIERE ON THE ART OF SLOWNESS AND ATTITUDES TOWARD TIME IN NON-WESTERN CULTURES; AND CATHOLIC HISTORIAN JEAN DELUMEAU ON HOW THE WESTERN IMAGINATION HAS ALWAYS BEEN HAUNTED BY IDEAS OF THE APOCALYPSE.

**Eight Little Piggies** - STEPHEN JAY GOULD 1994

THIS COLLECTION OF ESSAYS RANGES FROM HISTORY TO THE LATEST THEORIES IN BIOLOGY, FROM CONTROVERSIES OVER PALAEOONTOLOGY TO THE ORIGINS OF LANGUAGE. THE TITLE IS A PUN AND AS ALWAYS WITH GOULD, THE JOKE HAS A POINT THAT ILLUSTRATES THE LARGEST PATTERN OF LIFE'S HISTORY. FOR MILLENNIA, THE ANIMALS THAT POPULATED THE EARTH HAD FOUR TOES ON EACH FOOT, OR SIX. IF EVOLUTION HAD TAKEN A TINY SHIFT - IF MAN'S ANCESTORS HAD INHERITED A COUPLE OF GENES IN A DIFFERENT FORM - OUR CANONICAL NUMBER, BASED ON MAN'S FINGERS AND TOES, MIGHT BE EIGHT INSTEAD OF TEN. STEPHEN JAY GOULD HAS ALSO WRITTEN WONDERFUL LIFE, BULLY FOR BRONTOSAURUS AND FINDERS KEEPERS.

**Rocks of Ages** - STEPHEN JAY GOULD 2011-07-20

“PEOPLE OF GOOD WILL WISH TO SEE SCIENCE AND RELIGION AT PEACE. . . . I DO NOT SEE HOW SCIENCE AND RELIGION COULD BE UNIFIED, OR EVEN SYNTHESIZED, UNDER ANY COMMON SCHEME OF EXPLANATION OR ANALYSIS; BUT I ALSO DO NOT UNDERSTAND WHY THE TWO ENTERPRISES SHOULD EXPERIENCE ANY CONFLICT.” SO STATES INTERNATIONALLY RENOWNED EVOLUTIONIST AND BESTSELLING AUTHOR STEPHEN JAY GOULD IN THE SIMPLE YET PROFOUND THESIS OF HIS BRILLIANT NEW BOOK. WRITING WITH BRACING INTELLIGENCE AND ELEGANT CLARITY, GOULD SHEDS NEW LIGHT ON A DILEMMA THAT HAS PLAGUED THINKING PEOPLE SINCE THE RENAISSANCE. INSTEAD OF CHOOSING BETWEEN SCIENCE AND RELIGION, GOULD ASKS, WHY NOT OPT FOR A GOLDEN MEAN THAT ACCORDS DIGNITY AND DISTINCTION TO EACH REALM? AT THE HEART OF GOULD'S PENETRATING ARGUMENT IS A LUCID, CONTEMPORARY PRINCIPLE HE CALLS NOMA (FOR NONOVERLAPPING MAGISTERIA)--A “BLESSEDLY SIMPLE AND ENTIRELY CONVENTIONAL RESOLUTION” THAT ALLOWS SCIENCE AND RELIGION TO COEXIST PEACEFULLY IN A POSITION OF RESPECTFUL NONINTERFERENCE. SCIENCE DEFINES THE NATURAL WORLD; RELIGION, OUR MORAL WORLD, IN RECOGNITION OF THEIR SEPARATE SPHERES OF INFLUENCE. IN ELABORATING AND EXPLORING THIS THOUGHT-PROVOKING CONCEPT, GOULD DELVES INTO THE HISTORY OF SCIENCE, SKETCHING AFFECTING PORTRAITS OF SCIENTISTS AND MORAL LEADERS WRESTLING WITH MATTERS OF FAITH AND REASON. STORIES OF SEMINAL FIGURES SUCH AS GALILEO, DARWIN, AND THOMAS HENRY HUXLEY MAKE VIVID HIS ARGUMENT THAT INDIVIDUALS AND CULTURES MUST CULTIVATE BOTH A LIFE OF THE SPIRIT AND A LIFE OF RATIONAL INQUIRY IN ORDER TO EXPERIENCE THE FULLNESS OF BEING HUMAN. IN HIS BESTSELLING BOOKS WONDERFUL LIFE, THE Mismeasure of Man, and Questioning the Millennium, GOULD HAS WRITTEN ON THE ABUNDANCE OF MARVELS IN HUMAN HISTORY AND THE NATURAL WORLD. IN *Rocks of Ages*, GOULD'S PASSIONATE HUMANISM, ETHICAL DISCERNMENT, AND ERUDITION ARE FUSED TO CREATE A DAZZLING GEM OF CONTEMPORARY CULTURAL PHILOSOPHY. AS THE WORLD'S PREEMINENT DARWINIAN THEORIST WRITES, “I BELIEVE, WITH ALL MY HEART, IN A RESPECTFUL, EVEN LOVING CONCORDAT BETWEEN . . . SCIENCE AND RELIGION.”

*Melancholies of Knowledge* - MARGERY ARENT SAFIR 1999-01-01

SCHOLARS IN THE EXACT AND SOCIAL SCIENCES JOIN LITERARY CRITICS TO CONSIDER THE WORK OF FRENCH AUTHOR MICHEL RIO AND TO

REFLECT ON LITERATURE’S PLACE IN INTELLECTUAL DISCOURSE IN AN AGE DOMINATED BY SCIENCE.

**FULL HOUSE** - STEPHEN JAY GOULD 2011-10

GOULD SHOWS WHY A MORE ACCURATE WAY OF UNDERSTANDING OUR WORLD IS TO LOOK AT A GIVEN SUBJECT WITHIN ITS OWN CONTEXT, TO SEE IT AS A PART OF A SPECTRUM OF VARIATION AND THEN TO RECONCEPTUALIZE TRENDS AS EXPANSION OR CONTRACTION OF THIS “FULL HOUSE” OF VARIATION, AND NOT AS THE PROGRESS OR DEGENERATION OF AN AVERAGE VALUE, OR SINGLE THING.

*THE MISMEASURE OF MAN* - STEPHEN JAY GOULD 1997

EXPOSES THE FATAL FLAWS IN INTELLIGENCE TESTING AND REAFFIRMS THE VARIETY OF HUMAN POTENTIAL.

**I HAVE LANDED** - STEPHEN JAY GOULD 2011-10

GOULD’S FINAL ESSAY COLLECTION IS BASED ON HIS REMARKABLE SERIES FOR NATURAL HISTORY MAGAZINE—EXACTLY 300 CONSECUTIVE ESSAYS, WITH NEVER A MONTH MISSED, PUBLISHED FROM 1974 TO 2001. BOTH AN INTELLECTUALLY THRILLING JOURNEY INTO THE NATURE OF SCIENTIFIC DISCOVERY AND THE MOST PERSONAL BOOK HE EVER PUBLISHED.

**THE ALAMO CITY GUIDE** - STEPHEN GOULD 2018-02-03

THIS WORK HAS BEEN SELECTED BY SCHOLARS AS BEING CULTURALLY IMPORTANT, AND IS PART OF THE KNOWLEDGE BASE OF CIVILIZATION AS WE KNOW IT. THIS WORK WAS REPRODUCED FROM THE ORIGINAL ARTIFACT, AND REMAINS AS TRUE TO THE ORIGINAL WORK AS POSSIBLE. THEREFORE, YOU WILL SEE THE ORIGINAL COPYRIGHT REFERENCES, LIBRARY STAMPS (AS MOST OF THESE WORKS HAVE BEEN HOUSED IN OUR MOST IMPORTANT LIBRARIES AROUND THE WORLD), AND OTHER NOTATIONS IN THE WORK. THIS WORK IS IN THE PUBLIC DOMAIN IN THE UNITED STATES OF AMERICA, AND POSSIBLY OTHER NATIONS. WITHIN THE UNITED STATES, YOU MAY FREELY COPY AND DISTRIBUTE THIS WORK, AS NO ENTITY (INDIVIDUAL OR CORPORATE) HAS A COPYRIGHT ON THE BODY OF THE WORK. AS A REPRODUCTION OF A HISTORICAL ARTIFACT, THIS WORK MAY CONTAIN MISSING OR BLURRED PAGES, POOR PICTURES, ERRANT MARKS, ETC. SCHOLARS BELIEVE, AND WE CONCUR, THAT THIS WORK IS IMPORTANT ENOUGH TO BE PRESERVED, REPRODUCED, AND MADE GENERALLY AVAILABLE TO THE PUBLIC. WE APPRECIATE YOUR SUPPORT OF THE PRESERVATION PROCESS, AND THANK YOU FOR BEING AN IMPORTANT PART OF KEEPING THIS KNOWLEDGE ALIVE AND RELEVANT.

**WONDERFUL LIFE** - STEPHEN JAY GOULD 2000

A MASTERPIECE OF ANALYSIS AND IMAGINATION...IT CENTRES ON A SENSATIONAL DISCOVERY IN THE FIELD OF PALAEOLOGY - THE EXISTENCE, IN THE BURGESS SHALE... OF 530-MILLION-YEAR-OLD FOSSILS UNIQUE IN AGE, PRESERVATION AND DIVERSITY...WITH SKILL AND PASSION, GO

**EVER SINCE DARWIN** - STEPHEN JAY GOULD 1991

EVER SINCE DARWIN, STEPHEN JAY GOULD’S FIRST BOOK, HAS SOLD MORE THAN A QUARTER OF A MILLION COPIES. LIKE ALL SUCCEEDING COLLECTIONS BY THIS UNIQUE WRITER, IT BRINGS THE ART OF THE SCIENTIFIC ESSAY TO UNPARALLELED HEIGHTS.

*EVER SINCE DARWIN: REFLECTIONS IN NATURAL HISTORY* - STEPHEN JAY GOULD 1992-07-17

MORE THAN ANY OTHER MODERN SCIENTISTS, STEPHEN JAY GOULD HAS OPENED UP TO MILLIONS THE WONDERS OF EVOLUTIONARY BIOLOGY. HIS GENIUS AS AN ESSAYIST LIES IN HIS UNMATCHED ABILITY TO USE HIS KNOWLEDGE OF THE WORLD, INCLUDING POPULAR CULTURE, TO ILLUMINATE THE REALM OF SCIENCE. EVER SINCE DARWIN, STEPHEN JAY GOULD’S FIRST BOOK, HAS SOLD MORE THAN A QUARTER OF A MILLION COPIES. LIKE ALL SUCCEEDING COLLECTIONS BY THIS UNIQUE WRITER, IT BRINGS THE ART OF THE SCIENTIFIC ESSAY TO UNPARALLELED HEIGHTS.

**THE BOOK OF LIFE** - STEPHEN JAY GOULD 1993

AN ILLUSTRATED NATURAL HISTORY OF THE EARTH AND ITS DENIZENS COMBINES THE PAINTINGS, DRAWINGS, AND COMPUTER-GENERATED IMAGES WITH A CHRONICLE OF THE WORLD’S VARIEGATED ORGANISMS AND SPECIES

*TIME’S ARROW, TIME’S CYCLE* - STEPHEN JAY GOULD 1987

EXAMINES SCIENTIFIC THEORIES PERTAINING TO THE MEASUREMENT OF EARTH’S HISTORY.

LEONARDO’S MOUNTAIN OF CLAMS AND THE DIET OF WORMS - STEPHEN JAY GOULD 2011-10

WITH HIS CUSTOMARY BRILLIANCE, GOULD EXAMINES THE PUZZLES AND PARADOXES GREAT AND SMALL THAT BUILD NATURE’S AND HUMANITY’S DIVERSITY AND ORDER.

**PUNCTUATED EQUILIBRIUM** - STEPHEN JAY GOULD 2007-05-31

IN 1972 STEPHEN JAY GOULD TOOK THE SCIENTIFIC WORLD BY STORM WITH HIS PAPER ON PUNCTUATED EQUILIBRIUM, WRITTEN WITH NILES ELDRIDGE. CHALLENGING A CORE ASSUMPTION OF DARWIN’S THEORY OF EVOLUTION, IT LAUNCHED THE CAREER OF ONE OF THE MOST INFLUENTIAL EVOLUTIONARY BIOLOGISTS OF OUR TIME--PERHAPS THE BEST KNOWN SINCE DARWIN. NOW, THIRTY-FIVE YEARS LATER, AND FIVE YEARS AFTER HIS UNTIMELY DEATH, PUNCTUATED EQUILIBRIUM (ORIGINALLY PUBLISHED AS THE CENTRAL CHAPTER OF GOULD’S MASTERWORK, THE STRUCTURE OF EVOLUTIONARY THEORY) OFFERS HIS ONLY BOOK-LENGTH TESTAMENT ON AN IDEA HE FIERCELY PROMOTED, REPEATEDLY REFINED, AND TIRELESSLY DEFENDED. PUNCTUATED EQUILIBRIUM HOLDS THAT THE GREAT MAJORITY OF SPECIES ORIGINATE IN GEOLOGICAL MOMENTS (PUNCTUATIONS) AND PERSIST IN STASIS. THE IDEA WAS HOTLY DEBATED BECAUSE IT FORCED BIOLOGISTS TO RETHINK ENTRENCHED IDEAS ABOUT EVOLUTIONARY PATTERNS AND PROCESSES. BUT AS GOULD SHOWS HERE IN HIS TYPICALLY EXHAUSTIVE COVERAGE, THE IDEA HAS BECOME THE FOUNDATION OF A NEW VIEW OF HIERARCHICAL SELECTION AND MACROEVOLUTION. WHAT EMERGES STRIKINGLY FROM THIS BOOK IS THAT PUNCTUATED EQUILIBRIUM REPRESENTS A MUCH BROADER PARADIGM ABOUT THE NATURE OF CHANGE--A WORLDVIEW THAT MAY BE JUDGED AS A DISTINCTIVE AND IMPORTANT MOVEMENT WITHIN RECENT INTELLECTUAL HISTORY. INDEED WE MAY NOW BE LIVING WITHIN A PUNCTUATION, AND OUR AWARENESS OF WHAT THIS MEANS MAY BE THE ENDURING LEGACY OF ONE OF AMERICA’S BEST-LOVED SCIENTISTS.

*STEPHEN J. GOULD: THE SCIENTIFIC LEGACY* - GIAN ANTONIO DANIELI 2013-07-23

STEPHEN J. GOULD’S GREATEST CONTRIBUTION TO SCIENCE IS A REVISED VERSION OF THE THEORY OF EVOLUTION WHICH OFFERS TODAY A USEFUL FRAMEWORK FOR UNDERSTANDING PROGRESS IN MANY EVOLUTIONARY FIELDS. HIS INTUITIONS ABOUT THE CONJUNCTION OF EVOLUTION AND DEVELOPMENT, THE ROLE OF ECOLOGICAL FACTORS IN SPECIATION, THE MULTI-LEVEL INTERPRETATION OF THE UNITS OF SELECTION, AND THE INTERPLAY BETWEEN FUNCTIONAL PRESSURES AND CONSTRAINTS ALL REPRESENT FRUITFUL LINES OF EXPERIMENTAL RESEARCH. HIS OPPOSITION TO THE PROGRESSIVE REPRESENTATIONS OF EVOLUTION, THE GENE-CENTERED VIEW OF NATURAL HISTORY, OR THE ADAPTATIONIST “JUST-SO STORIES” HAS ALSO LEFT ITS MARK ON CURRENT BIOLOGY. IN MAY 2012, AT THE ISTITUTO VENETO DI SCIENZE, LETTERE ED ARTI IN VENICE, AN INTERNATIONAL PANEL OF SCIENTISTS AND PHILOSOPHERS DISCUSSED STEPHEN J. GOULD’S LEGACY, TEN YEARS AFTER HIS DEATH. THIS BOOK PRESENTS A SELECTION OF THOSE CONTRIBUTIONS, CHOSEN FOR THEIR INTEREST AND IMPORTANCE. A BROAD RANGE OF THEMES ARE COVERED: GOULD’S CONTRIBUTION TO EVOLUTIONARY THEORY, INCLUDING THE CONCEPT OF PUNCTUATED EQUILIBRIA AND THE IMPORTANCE OF HIS PLURALISM; THE GOULDIAN VIEW OF GENOME AND DEVELOPMENT; GOULD’S LEGACY IN ANTHROPOLOGY; AND, FINALLY, THE SIGNIFICANCE OF HIS THOUGHT FOR THE HUMAN SCIENCES. THIS BOOK PROVIDES A FASCINATING APPRAISAL OF THE CULTURAL LEGACY OF ONE OF THE WORLD’S GREATEST POPULAR WRITERS IN THE LIFE SCIENCES. THIS IS THE FIRST TIME THAT SCIENTISTS INCLUDING SOME OF GOULD’S PERSONAL FRIENDS AND CO-AUTHORS OF PAPERS OF MOMENTOUS IMPORTANCE SUCH AS NILES ELDRIDGE HAVE COME TOGETHER TO STRIKE A BALANCED VIEW OF GOULD’S INTELLECTUAL HERITAGE.

*FINDERS, KEEPERS* - ROSAMOND WOLFF PURCELL 1992

A NOTED PALEONTOLOGIST PROVIDES THE TEXT FOR THIS PHOTOGRAPHIC STUDY OF EIGHT DIFFERENT COLLECTIONS--FROM A COLLECTION OF HUMAN ARTIFACTS BELONGING TO PETER THE GREAT TO AGASSY’S FISH COLLECTION--EXPLORING WHAT COLLECTIONS SAY ABOUT COLLECTORS.

*EIGHT LITTLE PIGGIES* - STEPHEN JAY GOULD 1994

BIOLOGY/NATURAL HISTORY.

**THE PANDA’S THUMB** - STEPHEN JAY GOULD 1990

ESSAYS EXPLORING THE NATURE OF EVOLUTION

CROSSING OVER - STEPHEN JAY GOULD 2000

CROSSING OVER, THE LATEST OF THREE COLLABORATIONS BETWEEN SCHOLAR STEPHEN JAY GOULD AND ARTIST ROSAMOND WOLFF PURCELL, BRINGS TOGETHER THOUGHT-PROVOKING ESSAYS AND UNCANNILY BEAUTIFUL PHOTOGRAPHS TO DISPROVE THE POPULAR NOTION THAT ART AND SCIENCE EXIST IN AN ANTAGONISTIC RELATIONSHIP. THE ESSAYS AND PHOTOGRAPHS COLLECTED HERE PRESENT ART AND SCIENCE IN CONVERSATION, RATHER THAN IN OPPOSITION. AS GOULD WRITES IN HIS PREFACE, ALTHOUGH THE TWO DISCIPLINES MAY USUALLY COMMUNICATE IN DIFFERENT DIALECTS, WHEN JUXTAPOSED THEY STRIKINGLY REFLECT UPON AND ENHANCE ONE ANOTHER. WORKING TOGETHER, PURCELL’S PHOTOGRAPHS AND GOULD’S SCIENTIFIC MUSINGS SPEAK TO US ABOUT OURSELVES AND OUR WORLD IN A HYBRID LANGUAGE RICHER THAN EITHER COULD COMMAND ON ITS OWN. IN AN ESSAY ON INDIVIDUALITY, FOR INSTANCE, GOULD LOOKS THROUGH THE LENS OF EVOLUTIONARY THEORY TO ADDRESS THE CONTROVERSIAL ISSUE OF CLONING AND THE OFTEN MISGUIDED FEARS IT EVOKES. AS A SOCIETY THAT EXALTS THE CONCEPT OF THE INDIVIDUAL, GOULD ARGUES, WE SOMETIMES FAIL TO RECOGNIZE THAT CLONES WALK AMONG US. IDENTICAL TWINS REPRESENT “THE GREATEST OF ALL CHALLENGES TO OUR CONCEPT OF INDIVIDUALITY.” ROSAMOND PURCELL’S PHOTOGRAPH DEPICTING THE FAMOUS SIAMESE CONJOINED TWINS ENG AND CHANG CONVEYS AN EERIE FEELING THAT CANNOT BE CAPTURED IN WORDS. THROUGH ITS UNIQUE COMBINATION OF WORDS AND PHOTOGRAPHS, CROSSING OVER PROMPTS US TO PONDER NOT ONLY THE BASIS OF THE FALSE DICHOTOMY BETWEEN ART AND SCIENCE, BUT ALSO THE DISTINCTION OF MIND AND NATURE, AND OF ALL HUMANLY IMPOSED CATEGORIES OF ORDER. GOULD AND PURCELL’S WORK CONVINCES THE READER THAT A PROVOCATIVE INTERPLAY BETWEEN ART AND SCIENCE IS NOT ONLY POSSIBLE, BUT INEVITABLE AND NECESSARY AS WELL.

**ONTOGENY AND PHYLOGENY** - STEPHEN JAY GOULD 1985-01-17

“ONTOGENY RECAPITULATES PHYLOGENY” WAS HAECKEL’S ANSWER—THE WRONG ONE—to the most vexing question of NINETEENTH-CENTURY BIOLOGY: WHAT IS THE RELATIONSHIP BETWEEN INDIVIDUAL DEVELOPMENT (ONTOGENY) AND THE EVOLUTION OF SPECIES AND LINEAGES (PHYLOGENY)? IN THIS, THE FIRST MAJOR BOOK ON THE SUBJECT IN FIFTY YEARS, STEPHEN JAY GOULD DOCUMENTS THE HISTORY OF THE IDEA OF RECAPITULATION FROM ITS FIRST APPEARANCE AMONG THE PRE-SOCRATICS TO ITS FALL IN THE EARLY TWENTIETH CENTURY. MR. GOULD EXPLORES RECAPITULATION AS AN IDEA THAT INTRIGUED POLITICIANS AND THEOLOGAINS AS WELL AS SCIENTISTS. HE SHOWS THAT HAECKEL’S HYPOTHESIS—THAT HUMAN FETUSES WITH GILL SLITS ARE, LITERALLY, TINY FISH, EXACT REPLICAS OF THEIR WATER-BREATHING ANCESTORS—HAD AN INFLUENCE THAT EXTENDED BEYOND BIOLOGY INTO EDUCATION, CRIMINOLOGY, PSYCHOANALYSIS (FREUD AND JUNG WERE DEVOUT RECAPITULATIONISTS), AND RACISM. THE THEORY OF RECAPITULATION, GOULD ARGUES, FINALLY COLLAPSED NOT FROM THE WEIGHT OF CONTRARY DATA, BUT BECAUSE THE RISE OF MENDELIAN GENETICS RENDERED IT UNTENABLE. TURNING TO MODERN CONCEPTS, GOULD DEMONSTRATES THAT, EVEN THOUGH THE WHOLE SUBJECT OF PARALLELS BETWEEN ONTOGENY AND PHYLOGENY FELL INTO DISREPUTE, IT IS STILL ONE OF THE GREAT THEMES OF EVOLUTIONARY BIOLOGY. HETEROCHRONY—CHANGES IN DEVELOPMENTAL TIMING, PRODUCING PARALLELS BETWEEN ONTOGENY AND PHYLOGENY—is SHOWN TO BE CRUCIAL TO AN UNDERSTANDING OF GENE REGULATION, THE KEY TO ANY RAPPROCHEMENT BETWEEN MOLECULAR AND EVOLUTIONARY BIOLOGY. GOULD ARGUES THAT THE PRIMARY EVOLUTIONARY VALUE OF HETEROCHRONY MAY LIE IN IMMEDIATE ECOLOGICAL ADVANTAGES FOR SLOW OR RAPID MATURATION, RATHER THAN IN LONG-TERM CHANGES OF FORM, AS ALL PREVIOUS THEORIES PROCLAIMED. NEOTENY—THE OPPOSITE OF RECAPITULATION—is SHOWN TO BE THE MOST IMPORTANT DETERMINANT OF HUMAN EVOLUTION. WE HAVE EVOLVED BY RETAINING THE JUVENILE CHARACTERS OF OUR ANCESTORS AND HAVE ACHIEVED BOTH BEHAVIORAL FLEXIBILITY AND OUR CHARACTERISTIC MORPHOLOGY THEREBY (LARGE BRAINS BY PROLONGED RETENTION OF RAPID FETAL GROWTH RATES, FOR EXAMPLE). GOULD CONCLUDES THAT “THERE MAY BE NOTHING NEW UNDER THE SUN, BUT PERMUTATION OF THE OLD WITHIN COMPLEX SYSTEMS CAN DO WONDERS. AS BIOLOGISTS, WE DEAL DIRECTLY WITH THE KIND OF MATERIAL COMPLEXITY THAT

CONFERS AN UNBOUNDED POTENTIAL UPON SIMPLE, CONTINUOUS CHANGES IN UNDERLYING PROCESSES. THIS IS THE CHIEF JOY OF OUR SCIENCE.”

**QUESTIONING THE MILLENNIUM** - STEPHEN JAY GOULD 2011-10

GOULD ADDRESSES THREE QUESTIONS ABOUT THE MILLENNIUM WITH HIS TYPICAL ERUDITION, WARMTH, AND WHIMSY: WHAT IS THE CONCEPT OF A MILLENNIUM AND HOW HAS ITS MEANING SHIFTED OVER TIME? HOW DID THE PROJECTION OF CHRIST’S 1,000-YEAR REIGN BECOME A SECULAR MEASURE? AND WHEN EXACTLY DOES THE MILLENNIUM BEGIN—JANUARY 1, 2000, OR JANUARY 2, 2001?

LIFE’S GRANDEUR - STEPHEN JAY GOULD 1996

IN THIS TOUR-DE-FORCE OF SCIENTIFIC AND CULTURAL INSIGHT, GOULD DISCUSSES THE HISTORY OF LIFE, OF MUSIC, SPORT AND OTHER HUMAN ACHIEVEMENTS IN HIS SEARCH FOR THE MEANING OF EXCELLENCE.

**BULLY FOR BRONTOSAURUS** - STEPHEN JAY GOULD 1991

**THE FLAMINGO’S SMILE** - STEPHEN JAY GOULD 1985

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