OCTOBER 17, 2010 THESKEPTICARENA.COM

AMERICANS FOR TRUTH ABOUT HOMOSEXUALITY (AFTAH)

WAS HOLDING AN ANTI-GAY-RIGHTS “TRUTH ACADEMY”

THESE COMMENTS WERE TAKEN FROM A PANEL DISCUSSION TITLED, “CAN THE EFFORT TO ‘MAINSTREAM’ HOMOSEXUALITY IN AMERICAN CULTURE BE STOPPED?"; THE PANEL FEATURED ALL OF TODAY’S SPEAKERS, ALONG WITH GREG QUINLAN (PRO-FAMILY NETWORK) AND MATT BARBER (LIBERTY UNIVERSITY):

MATT BARBER: WE SHOULD NOT BE POLITICALLY CORRECT.

(MATT, I AGREE THAT YOU SHOULD NOT BE POLITICALLY CORRECT BUT NOT FOR THE SAME REASON THAT YOU DO. TO BE "POLITICALLY CORRECT" IS TO BE WRONG BUT FOR A REASON THAT IS DEEMED CORRECT BY CURRENT SOCIAL STANDARDS.

IF SOMETHING IS RIGHT, THERE IS NO NEED TO PUT THE ADJECTIVE "POLITICALLY" IN FRONT OF IT - IT IS SIMPLY CORRECT UNDER ANY SOCIAL STANDARD).

IT’S NATURAL FOR GAYS TO BE REVILED.

(MATT, YOU ARE GOING TO HAVE TO DO BETTER THAN THAT. JUSTIFYING HATE AND DISCRIMINATION BY CALLING IT "NATURAL" IS NOT GOING TO FLY. BASED ON 4 BILLION YEARS OF EVOLUTION, KILLING IS NATURAL. BUT IN OUR MODERN WORLD IT IS NO LONGER "RIGHT").

IT’S IMPORTANT TO FOCUS ON THE HEALTH RISKS OF HOMOSEXUALITY,

(OKAY MATT, AND THEN AFTER WE'VE DONE THAT, LET'S FOCUS ON THE HEALTH RISKS OF YOUR RELIGION SUCH AS ABORTION CLINIC BOMBINGS, KILLING HOMOSEXUALS AND NONBELIEVERS, WITCH BURNINGS, EXORCISMS, AND LEAVING KIDS ALONE AT A CATHOLIC CHURCH).

BUT WE NEED TO BE AGGRESSIVE AND UNAPOLOGETICALLY LOVING.

(MATT, WHY WOULD ANYONE NEED TO APOLOGIZE FOR BEING LOVING? OH YEAH - I FORGOT ABOUT CHRIST'S PRIESTS. NOW I SEE YOUR POINT.

DON'T WORRY, I HAVEN'T HEARD THE CHURCH DOING MUCH APOLOGIZING FOR THEIR PEDOPHILE PRIESTS - THEY SEEM MOSTLY CONCERNED WITH PROTECTING THEM).

GREG QUINLAN: IF YOU BIBLE-THUMP OR TALK ABOUT SEX, IT TURNS PRO-GAYS OFF. IF YOU GIVE THEM THE SCIENCE, YOU SOUND LIKE SOMEBODY IN AUTHORITY AND THEY DON’T KNOW HOW TO RESPOND TO THAT.

(GREG, THE PEOPLE WHO DON'T KNOW HOW TO RESPOND TO SOMEONE IN AUTHORITY ARE CALLED RELIGIOUS PEOPLE.

AND BY THE WAY, WHAT SCIENCE? YOUR HATE DOES NOT COME FROM ANY SCIENCE, ONLY FROM AN ANCIENT BOOK OF MAGICAL FAIRY TALES).

CLIFF KINCAID: THIS ISSUE OF HOMOSEXUALITY AFFECTS YOU BECAUSE GAYS ARE DEMANDING TO GIVE BLOOD. THE HEMOPHILIACS ARE OUTRAGED BY THE HOMOSEXUAL LOBBY SAYING THEY HAVE A RIGHT TO GIVE BLOOD. THEY WANT TO FORCE THEMSELVES INTO THE BLOOD SUPPLY IN A CALLOUS AND ARROGANT MANNER. MOTHERS NEED TO SPEAK UP. MOTHERS, YOUR CHILDREN ARE AT RISK!

(SO CLIFF, I GUESS THAT MEANS MOST PRIESTS WILL NOW BE PREVENTED FROM GIVING BLOOD? AND SINCE ALMOST EVERY GAY POLITICIAN THAT COMES OUT LATELY IS A CONSERVATIVE, BIBLE-THUMPING REPUBLICAN THEN I GUESS THEY SHOULD BE PREVENTED AS WELL. OKAY, THAT SOUNDS LIKE A GOOD IDEA TO ME).

GREG QUINLAN: THE CHURCH HAS TO BE INVOLVED IN POLITICS.

(GREG, IF YOU WANT TO BE INVOLVED IN POLITICS THEN START PAYING YOUR FAIR SHARE OF TAXES. AS LONG AS YOU PEOPLE REFUSE TO CONTRIBUTE TO THE DEFENSE AND MAINTENANCE OF OUR NATION, YOU HAVE NOT EARNED THE RIGHT TO BE INVOLVED IN POLITICS).

POLITICS ARE DIRTY.

(OKAY GREG, I TAKE IT ALL BACK. RELIGION DOES BELONG IN POLITICS).

OUR FOUNDING FATHERS WERE ALL RELIGIOUS MEN.

(GREG, YOUR HISTORY TEACHER SHOULD BE FIRED).

THEY WEREN’T ALL JUST DEISTS.

(SO GREG, NOW YOU ADMIT THAT YOU JUST LIED. YOU KNEW THAT ALL OF THEM WERE NOT RELIGIOUS MEN. YOU CAN TELL YOUR HISTORY TEACHER THAT HE CAN HAVE HIS JOB BACK).

THEY WERE BIBLE-BELIEVING MEN.

(GREG, DEISTS ARE NOT BIBLE BELIEVERS).

WE DO HAVE THE TRUTH AND THE TRUTH IS THIS:

(GREG, CLAIMING YOU HAVE THE TRUTH IS INSUFFICIENT: EVERYONE CLAIMS TO HAVE THE TRUTH. YOU MUST PROVE YOU HAVE THE TRUTH).

A FAMILY IS MADE UP OF A MOTHER AND A FATHER BECAUSE IT TAKES A MOTHER AND A FATHER TO RAISE A CHILD.

(GREG, MILLIONS OF SINGLE PARENT FAMILIES DISAGREE WITH YOU; AND ANOTHER EMBARRASSING NOTE (FOR YOU) - MANY OF THOSE FATHERS WHO DESERTED THEIR CHILDREN WERE ... CHRISTIANS).

LAURIE HIGGINS: PARENTS NEED TO REMOVE THEIR CHILDREN FROM PUBLIC SCHOOLS.

(WHY LAURIE?).

EVEN AFTER DOING THAT, THEY NEED TO MAKE LAW CHANGES BECAUSE OUR TAXES GO TO THE PUBLIC SCHOOLS.

(LAURIE, IF YOU REMOVE THE TAX MONEY NECESSARY TO SUPPORT PUBLIC SCHOOLS THEN WE WILL BE LEFT WITH ONLY PRIVATE RELIGIOUS SCHOOLS. OH, NOW I SEE YOUR GOAL - A THEOCRACY LIKE IRAN. HOW CHARMING).

WHEN WE ARE SILENT ON THIS ISSUE, WE TEACH OUR CHILDREN THROUGH ROLE-MODELING TO BE COWARDLY CONFORMISTS.

(LAURIE, WHEN YOU TEACH YOUR CHILDREN THROUGH "ROLE-MODELING" TO BE OBEDIENT SERVANTS TO AN INVISIBLE GHOST, HOW DO YOU CONCLUDE THAT THEY ARE ANY DIFFERENT FROM THOSE YOU ACCUSE OF BEING "COWARDLY CONFORMISTS?").

WE BEQUEATH A LEGACY OF MUCH GREATER OPPRESSION TO OUR CHILDREN AND OUR GRANDCHILDREN.

(LAURIE, IF YOU WANT TO SEE A LEGACY OF OPPRESSION JUST REVIEW THE LAST 2,000 YEARS OF CHRISTIAN HISTORY).

AT LEAST I CAN SAY TO MY CHILDREN THAT I DID EVERYTHING I COULD.

(LAURIE, WAIT A MINUTE - YOU HAVE CHILDREN? YOU MEAN THERE IS SOME GUY OUT THERE WHO ACTUALLY "DOES" YOU?).

RENA LINDEVALDSEN: WE NEED TO WORK TO COMPLETELY ELIMINATE PUBLIC SCHOOLS — GOVERNMENT SCHOOLS — AND PUSH A CHRISTIAN/BIBLICAL MODEL OF EDUCATING OUR CHILDREN

(ALLAHU AKBAR!

AND IF THESE NUTJOBS SUCCEED, WE WILL ALL BE KNEELING AND PRAYING IN THE DIRECTION OF BETHLEHEM ... 5 TIMES A DAY).

RYAN SORBA: WE NEED TO UNIFY BEHIND COMMON WINNING TALKING POINTS.

(RYAN, SCIENCE DOES NOT HAVE TO UNITE BEHIND COMMON WINNING TALKING POINTS. IT UNITES BEHIND EVIDENCE. IF YOU HAD EVEN ONE SCRAP OF EVIDENCE FOR ANYTHING THAT YOU BELIEVE, YOU WOULDN'T NEED TO UNITE BEHIND COMMON TALKING POINTS).

BOYCOTT THE TERM “GAY.” THEY ARE IN NO WAY ATTACHED TO ANY KIND OF IDENTITY BECAUSE IT’S NOT AN IDENTITY. THEY’RE NOT FUNCTIONING IN ACCORD WITH THEIR DESIGN.

(RYAN, WHEN CATHOLIC PRIESTS MOLEST CHOIRBOYS - ARE THEY FUNCTIONING IN ACCORD WITH THEIR DESIGN?).

WE NEED TO REPEAT OVER AND OVER AND OVER AGAIN THAT THERE IS NO SCIENTIFIC EVIDENCE THAT PEOPLE ARE BORN GAY.

(RYAN, IT IS IRRELEVANT WHETHER SCIENTIFIC EVIDENCE SUPPORTS THAT THEORY. EVEN IF THEY ARE NOT BORN GAY, WHY DO THEY NEED AN EXCUSE TO CHOOSE TO LOVE SOMEONE OF THEIR OWN SEX?

THEY DON'T. AND IT IS NONE OF YOUR BUSINESS IF THEY DO).

THERE IS NO STUDY THAT PROVES CAUSATION. PSYCHIATRISTS NEED TO RECLASSIFY HOMOSEXUALITY AS A MENTAL DISORDER.

(RYAN, I WILL AGREE WITH YOU ... ON THE SAME DAY THEY DO THE SAME WITH RELIGION).

PETER LABARBERA: “BORN GAY” EVIDENCE IS UNRELIABLE. THERE WAS ONCE A PRO-GAY ACTIVIST YELLING AS LOUD AS HE COULD THAT I WAS A MANIAC WHO WANTED TO KILL GAY PEOPLE. THIS SHOWS HOW UNSTABLE THESE GUYS ARE.

(PETER, YOU ARE IN SERIOUS NEED OF AN INTRODUCTORY COURSE IN LOGIC. THOSE 3 SENTENCES ARE NOT LOGICALLY CONNECTED:

"BORN GAY" EVIDENCE HAS NOTHING TO DO WITH AN ACTIVIST SHOUTING OUT INSULTS, NOR WHETHER OR NOT THAT PERSON IS UNSTABLE).

RYAN SORBA: GENES CODE FOR PROTEINS, NOT FOR BEHAVIORS.

(RYAN, WHEN PETER ENROLLS IN THAT INTRODUCTORY LOGIC COURSE, MAYBE YOU COULD GET YOURSELF INTO A BASIC BIOLOGY CLASS. BETWEEN THE TWO OF YOU, YOU MIGHT GET THEM TO OFFER YOU SOME KIND OF A DISCOUNT.

ONCE IN THAT BIOLOGY CLASS, YOU WILL LEARN THAT OUR BEHAVIORS ARE GREATLY INFLUENCED BY THE GENES THAT CODE FOR PROTEINS.

BUT IF I WERE YOU GUYS I WOULD STAY AWAY FROM THE GEOLOGY CLASS BECAUSE THE THINGS THEY WILL TELL YOU ABOUT NOAH'S ARK WILL LIKELY CAUSE BOTH OF YOU TO LOSE YOUR LUNCH).

THE “BORN GAY” THING IS A DEBATE THAT WE’RE DEFINITELY GOING TO WIN. NOBODY’S A MEAT PUPPET DANGLING FROM THE STRINGS OF THE CHEMICAL REACTIONS OF THEIR BRAIN.

(YET YOU YOURSELF, RYAN, BELIEVE THAT YOU ARE EXACTLY JUST THAT. YOU BELIEVE THAT AN ALL-KNOWING, OMNIPOTENT INVISIBLE GHOST HAS COMPLETE CONTROL OVER THE ENTIRE UNIVERSE INCLUDING ALL LIVING THINGS.

WHY DO YOU CRITICIZE A BELIEF WHICH IS A MIRROR IMAGE OF YOUR OWN BELIEFS?).

IT’S LETTING YOUR EMOTIONS RULE INSTEAD OF YOUR REASON.

(RYAN, YOUR KIDDING RIGHT? LET ME GET THIS STRAIGHT: A GHOST WORSHIPPER IS LECTURING SOMEONE ON USING REASON?

YOU'RE GOING TO HAVE TO GIVE ME A MINUTE AFTER THAT ONE. I HAVE TO TAKE A KNEE).

IT’S A DEBATE ABOUT IF YOU’RE ABLE TO DEFINE REALITY VS. YOUR ABILITY TO INTELLECTUALLY UNDERSTAND THE REALITY OF WORLD AROUND YOU.

(RYAN, DUDE, YOU BELIEVE IN INVISIBLE GHOSTS, UNICORNS, AND FISH THAT CAN SUSTAIN HUMAN LIFE FOR 3 DAYS. WHAT COULD YOU POSSIBLY KNOW OF THE REALITY OF THE WORLD AROUND YOU?)

WE SHOULD BE ABLE TO ARGUE FOR THE RE-CRIMINALIZATION OF SODOMY AND OVERTURN LAWRENCE V. TEXAS — THE PUNISHMENT WOULD JUST BE A FINE. IT WOULD INHIBIT GAY NIGHT CLUBS FROM SPRINGING UP WHERE AIDS IS SPREAD.

(RYAN, WHY DO YOU ASSUME THAT SODOMY IS ONLY A GAY ACTIVITY? SINCE GAYS COMPRISE LESS THAN 5% OF OUR POPULATION, AND SINCE ONLY HALF THOSE ARE MEN CAPABLE OF COMMITTING SODOMY, IT IS PROBABLY TRUE THAT FAR MORE HETEROSEXUALS ENGAGE IN THAT ACTIVITY THAN HOMOSEXUALS.

JUST A QUICK QUESTION RYAN, DO YOU EVER THINK ANYTHING OUT BEFORE IT DRIBBLES OUT OF YOUR MOUTH?).

IT’LL INHIBIT PORNOGRAPHY.

(RYAN, ONCE AGAIN, PORNOGRAPHY IS JUST AS PREVALENT AMONG HETEROSEXUALS AS IT IS AMONG HOMOSEXUALS, SO WHAT HAS IT GOT TO DO WITH YOUR WAR ON GAYS?).

YOU’RE NOT BORN GAY; IT’S A VICE. THESE PEOPLE NEED HELP.

(RYAN, I FEEL THE EXACT SAME WAY ABOUT YOUR RELIGION. ALTHOUGH I PROBABLY WOULD REPLACE THE WORD "VICE" WITH "SICKNESS").

MATT BARBER: THE REALITY OF EX-GAYS POSES AN ENORMOUS THREAT TO THE HOMOSEXUAL MOVEMENT. THEIR ENTIRE ARGUMENT HINGES ON THE IMMUTABILITY OF HOMOSEXUALITY.

(NO MATT, IT DOESN'T. THE FACT THAT YOU CAN TERRORIZE PEOPLE TO THE POINT WHERE THEY WILL GIVE UP SOMETHING DOES NOT MEAN THAT THEY HAVE CHANGED - IT ONLY MEANS THEY HAVE TAKEN THE STEPS NECESSARY TO SURVIVE IN A SOCIETY THAT WILL THREATEN THEM WITH PUNISHMENT OR DEATH IF THEY DON'T).

PETER LABARBERA: [DISCUSSING LGBT PROTESTERS] THEY COME THERE WITH THEIR HATEFUL SIGNS;

(PETER, YOU ARE A COMPLETELY OBLIVIOUS HYPOCRITE. YOU HAVE JUST DESCRIBED CHRISTIANS AT ABORTION CLINICS, WAR HERO FUNERALS, GAY PARADES, AND ANYWHERE ELSE THAT ONE FINDS DISCRIMINATED GROUPS).

THIS IS THE LEVEL OF FANATICISM WE’RE DEALING WITH.

(HEY HYPOCRITE, HOW WOULD YOU DESCRIBE THE LEVEL OF FANATICISM AT A CHRISTIAN WITCH BURNING? AT A CRUSADE INTO MUSLIM COUNTRIES? CHRISTIAN INQUISITIONS RESULTING IN EXECUTIONS?

I COULD GO ON, BUT THE LIST IS JUST TOO LONG, AND I KNOW YOU HAVE MORE NEAT THINGS TO SAY).

MATT BARBER: AT GAY PRIDE PARADES, THEY HAVE SEX IN THE STREET IN FRONT OF CHILDREN.

(WELL MATT, THEN FIGURE OUT A WAY TO KEEP YOUR KIDS AWAY).

CLIFF KINCAID: LEFT-WING STUDENT GROUPS ARE LEADING BOYCOTTS OF BLOOD DRIVES, BECAUSE THEY’RE “DISCRIMINATORY.” THIS MOVEMENT IS EXPANDING. IF THIS KEEPS GETTING BIGGER AND BIGGER, WE ARE GOING TO FACE A SHORTAGE OF BLOOD.

(CLIFF, IF THERE IS ONE THING THAT CHRISTIANS HAVE NEVER BEEN SHORT OF THROUGHOUT THEIR 2,000 YEAR HISTORY ... IT IS BLOOD).

IT’S EXTORTION. I REMEMBER WHEN AIDS HAPPENED.

(CLIFF, CLOSE YOUR BIBLE AND TURN ON A TELEVISION - AIDS IS STILL HAPPENING).

I REMEMBER COVERING THIS. YOU HAVE TO BE OLDER TO UNDERSTAND WHAT WAS HAPPENING AT THIS TIME.

(OKAY CLIFF, WE'RE ALL VERY IMPRESSED BY HOW OLD AND WISE YOU ARE. SO WHAT'S YOUR POINT?).

I REALLY DON’T THINK A LOT OF THE YOUNG PEOPLE TODAY REMEMBER THE PANIC AND CATASTROPHE THAT ENVELOPED THE NATION BECAUSE OF AIDS. THEY DON’T UNDERSTAND HOW IT DEVELOPED. THEY DON’T UNDERSTAND THE DEVASTATION.

(CLIFF, WHAT THE HELL ARE YOU TALKING ABOUT? YOU SPEAK AS THOUGH IT HAS BEEN CURED AND ERADICATED. AIDS IS STILL EVERY BIT AS DANGEROUS AS IT EVER WAS. SINCE YOUR GOD REFUSED TO HELP US OUT, OUR DOCTORS AND RESEARCHERS HAVE DEVELOPED TREATMENTS THAT HAVE GREATLY EXTENDED THE LIVES OF THOSE INFECTED, BUT THE BATTLE STILL HAS A LONG, LONG WAY TO GO. THAT IS, UNLESS YOU ARE AWARE OF SOME MIRACLE CURE THAT NONE OF US HAS HEARD OF?).

RYAN SORBA: OF COURSE ROMANTIC ATTRACTION CAN HAPPEN BETWEEN ANY TWO PEOPLE, BUT THE QUESTION IS WHETHER IT ADHERES WITH THE “GOOD.”

(OKAY RYAN, TRANSLATE THAT FOR US).

A THING IS GOOD INSOFAR AS IT HELPS ACTUALIZE THE POTENTIAL FOR HUMANITY.

(WELL THEN RYAN, I GUESS WE CAN MOVE YOUR RELIGION OUT OF THE GOOD COLUMN SINCE THE ONLY THING CHRISTIANITY HAS ACCOMPLISHED IS TO SQUELCH HUMANITY'S POTENTIAL).

MAN IS A RATIONAL ANIMAL.

(RYAN, THAT ONLY APPLIES TO THOSE WHO ARE RATIONAL. SINCE YOU BELIEVE IN INVISIBLE GHOSTS ... THAT LEAVES YOU OUT).

HIS FINAL END IS TO KNOW GOD AND TRUTH;

(RYAN, THE PROBLEM WITH THAT IS, ONCE ONE KNOWS TRUTH, GOD IS DISMISSED. LIKEWISE, KNOWING GOD ELIMINATES ANY CHANCE OF EVER KNOWING THE TRUTH).

TRUTH MEANS CORRELATION WITH REALITY.

(EXACTLY MY POINT RYAN. YOU JUST CONCLUSIVELY PROVED MY LAST STATEMENT.

THERE IS NOTHING IN YOUR BIBLE OR YOUR BELIEFS THAT CORRELATES WITH ANYTHING THAT WE SEE IN REALITY).

ABSENT TRUTH, WHAT’S THE POINT?

(ONCE AGAIN RYAN, WE ARE IN TOTAL AGREEMENT).

ABSENT CORRESPONDENCE WITH REALITY, WHAT ARE WE DOING HERE, DREAMING?

(RYAN, I WOULD CALL WHAT YOU DO "CONSCIOUS DREAMING." IT IS DIFFICULT TO CONTROL WHAT WE DREAM WHILE SLEEPING. BUT THERE IS NO EXCUSE FOR WHAT YOU DO).

(MY FINAL COMMENT. THESE PEOPLE DO NOT REPRESENT MAINSTREAM CHRISTIANITY. HELL, THEY DO NOT EVEN REPRESENT JESUS; AT LEAST NOT THE ONE DESCRIBED IN THE NEW TESTAMENT. YOU KNOW, THE GUY WHO TAUGHT US TO LOVE OUR ENEMIES AND TURN THE OTHER CHEEK. THE GUY WHO TAUGHT CHRISTIANS HOW TO PRAY, NOT LIKE THE HYPOCRITES, BUT IN PRIVATE. THESE PEOPLE SEEM TO HAVE NEVER HEARD OF JESUS. THEY CERTAINLY DON'T FOLLOW ANY OF HIS TEACHINGS.

WHO THEY DO REMIND ME OF, ARE THE HATE-FILLED PUS BAGS AT THE WESTBORO BAPTIST CHURCH WHO PROTEST AT THE FUNERALS OF WAR HEROS; PASTOR TERRY JONES WHO THREATENED TO BURN KORANS BEFORE BEING TALKED OUT OF IT BY HALF OF AMERICA; THE ILLINOIS FAMILY INSTITUTE WHICH DEDICATES ITS TIME TO FIGHTING HOMOSEXUALS WHILE TRUE CHRISTIANS SPEND THEIR TIME TRYING TO DO CHRIST'S WORK. THESE PEOPLE HAVE MORE IN COMMON WITH WITCH BURNING INQUISITORS THAN THEY DO WITH MODERN AMERICAN CHRISTIANS.

WHEN AN ATHEIST HAS TO EXPLAIN TO CHRISTIANS HOW TO BE CHRIST-LIKE, THEN YOU KNOW THEY MUST HAVE FLOWN OFF THE HIGHWAY SOMEWHERE ALONG THE WAY TO THEIR DESTINATION).

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

CALLER

FOR THOSE OF YOU WHO ARE READING THIS DOCUMENT, IT WILL BE NECESSARY FOR YOU TO DOWNLOAD THE PODCAST TO HEAR THE EXCHANGE BETWEEN MYSELF AND A CALLER WHO APPARENTLY SEES A STRIKING LIKENESS BETWEEN STALIN AND MYSELF.

IT STARTS AT ABOUT 19:26 AND LASTS UNTIL THE 22:00 MARK.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

THE SCIENCE SEGMENT

PLANTS KICK-STARTED EVOLUTIONARY DRAMA OF EARTH'S OXYGENATION

AN INTERNATIONAL TEAM OF SCIENTISTS, EXPLOITING PIONEERING TECHNIQUES AT ARIZONA STATE UNIVERSITY, HAS TAKEN A SIGNIFICANT STEP TOWARD UNLOCKING THE SECRETS OF OXYGENATION OF THE EARTH'S OCEANS AND ATMOSPHERE.

EVOLUTION OF THE EARTH'S MULTITUDE OF ORGANISMS IS INTIMATELY LINKED TO THE RISE OF OXYGEN IN THE OCEANS AND ATMOSPHERE. THE NEW RESEARCH INDICATES THAT THE APPEARANCE OF LARGE PREDATORY FISH AS WELL AS VASCULAR PLANTS APPROXIMATELY 400 MILLION YEARS AGO COINCIDED WITH AN INCREASE IN OXYGEN, TO LEVELS COMPARABLE TO THOSE WE EXPERIENCE TODAY. IF SO, THEN ANIMALS FROM BEFORE THAT TIME APPEARED AND EVOLVED UNDER MARKEDLY LOWER OXYGEN CONDITIONS THAN PREVIOUSLY THOUGHT.

THE RESEARCHERS, INCLUDING COLLABORATORS FROM HARVARD, DENMARK, SWEDEN AND THE UNITED KINGDOM, MADE USE OF A METHOD DEVELOPED AT ASU BY ARIEL ANBAR, A PROFESSOR IN THE DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY AND THE SCHOOL OF EARTH AND SPACE EXPLORATION IN THE COLLEGE OF LIBERAL ARTS AND SCIENCES, AND HIS RESEARCH GROUP. THE METHOD CAN BE USED TO ESTIMATE GLOBAL OXYGEN LEVELS IN ANCIENT OCEANS FROM THE CHEMICAL COMPOSITION OF ANCIENT SEAFLOOR SEDIMENTS.

THEIR IMPORTANT FINDINGS ARE PRESENTED IN A PAPER PUBLISHED IN THE PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES (PNAS), TITLED "DEVONIAN RISE IN ATMOSPHERIC OXYGEN CORRELATED TO RADIATIONS OF TERRESTRIAL PLANTS AND LARGE PREDATORY FISH."

ANBAR, WHO LEADS ASU'S ASTROBIOLOGY PROGRAM, EXPLAINED "THERE HAS BEEN A LOT OF SPECULATION OVER THE YEARS ABOUT WHETHER OR NOT OXYGEN IN THE ATMOSPHERE WAS STEADY OR VARIABLE OVER THE LAST 500 MILLION YEARS. THIS IS THE ERA DURING WHICH ANIMALS AND LAND PLANTS EMERGED AND FLOURISHED. SO IT'S A PROFOUND QUESTION IN UNDERSTANDING THE HISTORY OF LIFE. THESE NEW FINDINGS NOT ONLY SUGGEST THAT OXYGEN LEVELS VARIED, BUT ALSO THAT THE VARIATION HAD DIRECT CONSEQUENCES FOR THE EVOLUTION OF COMPLEX LIFE."

THE EARTH IS 4.5 BILLION YEARS OLD. MICROBIAL LIFE HAS PROBABLY THRIVED IN THE OCEANS FOR MOST OF THAT TIME. HOWEVER, UNTIL ABOUT 2.3 BILLION YEARS AGO, THE ATMOSPHERE CONTAINED ONLY TRACES OF OXYGEN. DURING THAT TIME, SOME MICROBES IN THE OCEANS LIKELY PRODUCED OXYGEN AS A BYPRODUCT OF PHOTOSYNTHESIS. BUT THE QUANTITIES THEY PRODUCED WERE INSUFFICIENT TO ACCUMULATE MUCH IN THE ATMOSPHERE AND OCEANS. THE SITUATION CHANGED WITH THE "GREAT OXIDATION EVENT," 2.3 BILLION YEARS AGO. OXYGEN LEVELS ROSE AGAIN AROUND 550 MILLION YEARS AGO. THE FIRST ANIMALS APPEAR IN THE FOSSIL RECORD AT THIS TIME, MARKING THE BEGINNING OF AN ERA THAT GEOLOGISTS CALL THE "PHANEROZOIC" -- A GREEK WORD MEANING "EVIDENT ANIMALS." THIS NEW WORK EXPLORES HOW OXYGEN LEVELS CHANGED DURING THE PHANEROZOIC.

THE NEW STUDY WAS LED BY TAIS DAHL WHILE HE WAS A POSTDOCTORAL SCHOLAR AT HARVARD. DAHL RETURNED TO ASU TO PERFORM THE MEASUREMENTS FOR THIS STUDY, WHICH INVOLVED MEASURING THE RELATIVE AMOUNTS OF DIFFERENT ISOTOPES OF THE ELEMENT MOLYBDENUM IN ROCKS CALLED "BLACK SHALES." THESE ROCKS ARE FORMED FROM ANCIENT OCEAN SEDIMENTS.

ISOTOPES ARE ATOMS OF AN ELEMENT, IN THIS CASE MOLYBDENUM, THAT DIFFER ONLY IN THEIR MASS AND THEREFORE CAN BE EASILY DISTINGUISHED FROM ONE ANOTHER. MOLYBDENUM HAS SEVEN STABLE ISOTOPES. CHEMICAL REACTIONS FRACTIONATE HEAVY FROM LIGHT ISOTOPES. FOR EXAMPLE, CARBON 12 IS ENRICHED BY THREE PERCENT IN PLANTS RELATIVE TO THE CARBON IN CARBON DIOXIDE IN THE ATMOSPHERE. SIMILARLY, MOLYBDENUM ISOTOPES ARE FRACTIONATED DURING THEIR REMOVAL FROM SEAWATER INTO OCEAN SEDIMENTS. THE MAGNITUDE OF THIS FRACTIONATION IS SENSITIVE TO THE PRESENCE OF OXYGEN.

THE DATA DAHL OBTAINED AT ASU REVEAL THAT THERE WERE AT LEAST TWO STAGES OF OXYGENATION DURING THE PHANEROZOIC, SEPARATED BY THE OXYGENATION EVENT 400 MILLION YEARS AGO. THIS INFERENCE FROM MOLYBDENUM ISOTOPES IS CORROBORATED BY THE APPEARANCE OF LARGE PREDATORY FISH (UP TO 30 FEET LONG) IN THE FOSSIL RECORD 400 MILLION YEARS AGO, COINCIDENT WITH THE RISE IN OXYGEN. ANIMALS OF THAT SIZE CONSUME ENERGY RAPIDLY, REQUIRING HIGH LEVELS OF OXYGEN FOR THEIR METABOLISM.

ANBAR SAID, "BUT THE REAL KICKER IS THAT THESE DATA ALSO SHOW US THE REVERSE -- THAT BIOLOGICAL INNOVATION CAN DRIVE ENVIRONMENTAL CHANGE." HE POINTS TO THE FACT THAT VASCULAR PLANTS ALSO APPEAR IN THE FOSSIL RECORD AROUND 400 MILLION YEARS AGO. THE BODIES OF SUCH PLANTS DECOMPOSE WITH DIFFICULTY, MAKING IT EASIER FOR ORGANIC CARBON TO BE BURIED IN SEDIMENTS. WHEN THAT HAPPENS, THE ORGANIC CARBON -- PRODUCED BY PHOTOSYNTHESIS -- IS NOT AVAILABLE FOR REACTION WITH OXYGEN. THE CONSEQUENCE IS A RISE IN THE AMOUNT OF OXYGEN IN THE ENVIRONMENT.

THE BIOLOGICAL INNOVATION OF VASCULAR PLANTS LED TO MORE CARBON BURIAL, AND THEREFORE TO MORE OXYGEN. THEN, THE RISE IN OXYGEN MADE IT POSSIBLE FOR LARGER ANIMALS TO EVOLVE.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

RELIGION

WHY I ALLOWED MY SONS' 'BRUTAL' CIRCUMCISIONS

IT HURTS, BUT IT'S A NECESSARY COMFORT IN AN UNCERTAIN WORLD

TAFFY BRODESSER-AKNER BELIEVES THAT CIRCUMCISION IS “BRUTAL” MUTILATION. SO WHY DID SHE SUBJECT HER SONS, AND HERSELF, TO THE TRADITIONAL JEWISH BRIS—EVEN AS SHE SUFFERED “SELF-LOATHING” FOR WHAT SHE WAS PUTTING THEM THROUGH? SHE TRACES HER JEWISH UPBRINGING, DENOUNCEMENT OF RELIGION, AND EVENTUAL RETURN TO THE FAITH IN A THOUGHTFUL SALON COLUMN, ULTIMATELY REALIZING THAT EVEN THOUGH SHE LEAVES ROOM FOR THE IDEA THAT RELIGION IS A MADE-UP SUPERSTITION WHOSE GOAL IS TO FUNCTION IN EXACTLY THE WAY I'M USING IT, SHE STILL NEEDS TO CLING TO IT AS A PARENT.

(MY COMMENT: THE KEY PHRASE HERE IS "LEAVES ROOM FOR THE IDEA." THAT MEANS THAT ALTHOUGH SHE HAS DOUBTS ABOUT HER RELIGIOUS BELIEFS, SHE DOESN'T HAVE THE COURAGE TO ACTUALLY LET GO OF THEM. THIS WAS ALSO PROVEN BY HER RETURN TO RELIGIOUS BELIEF).

SHE WRITES, “BECOMING A PARENT IS HARD.” I AM SOMETIMES OVERWHELMED, NEARLY DRIVEN MAD, WHEN I REALIZE HOW MUCH IS OUT OF MY CONTROL.” AND THAT’S WHY SHE WENT THROUGH WITH THE CIRCUMCISION RITUAL: “WHEN I DO IT, I AM ASKING GOD TO SHARE THE RESPONSIBILITY WITH ME.”

(SO TAFFY, YOU BELIEVE THAT BY TALKING TO AN INVISIBLE MAN, YOU HAVE GAINED SOME CONTROL? YOU HAVE REDUCED YOUR RESPONSIBILITY?

CIRCUMCIZING YOUR SONS IS ONE OF THOSE THINGS OVER WHICH YOU DID HAVE CONTROL ... AND YOU EVEN GAVE THAT AWAY. THAT IS WHY SO MUCH IS OUT OF YOUR CONTROL - BECAUSE YOU, YOURSELF, ARE OUT OF CONTROL).

“I WILL GIVE YOU THIS, GOD. I WILL HURT MY SONS FOR YOU, AND YOU, IN EXCHANGE, WILL KEEP US SAFE.

(LADY, YOU ARE SICK. EVEN ANIMALS ARE MORE FORTUNATE THAN YOUR UNFORTUNATE SONS WHO WERE PUT THROUGH AN UNNECESSARY, PAINFUL PROCEDURE SO YOU COULD PLEASE AN INVISIBLE GHOST).

LET THEM LIVE. LET THEM BE HEALTHY. LET THEIR LIVES BE EASY. LET ME MERIT THE CHANCE TO SEE MY CHILDREN OUTLIVE ME.”

(LADY, IF I HAD MY WAY ... EVERYBODY WOULD OUTLIVE YOU).

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

FAMOUS QUOTES

SUSAN B. ANTHONY (1820 –1906) 86 YEARS.

SHE WAS A PROMINENT AMERICAN CIVIL RIGHTS LEADER WHO PLAYED A PIVOTAL ROLE IN THE 19TH CENTURY WOMEN'S RIGHTS MOVEMENT TO INTRODUCE WOMEN'S SUFFRAGE INTO THE UNITED STATES. SHE TRAVELED THE UNITED STATES, AND EUROPE, AND GAVE 75 TO 100 SPEECHES EVERY YEAR ON WOMEN'S RIGHTS FOR 45 YEARS.

"I DISTRUST THOSE PEOPLE WHO KNOW SO WELL

WHAT GOD WANTS THEM TO DO,

BECAUSE I NOTICE IT ALWAYS COINCIDES

WITH THEIR OWN DESIRES."

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

THE ARENA GOT ONE CALL WHILE BROADCASTING

IF YOU DOWNLOAD PODCAST #124, YOU CAN LISTEN TO A BRIEF EXCHANGE BETWEEN NEO AND A THEIST WHO TRIED TO ATTACK THE ARENA.

AFTER A COUPLE OF DIFFICULT MINUTES, HE RAN OUT AS FAST AS HE COULD WITH HIS TAIL BETWEEN HIS LEGS.