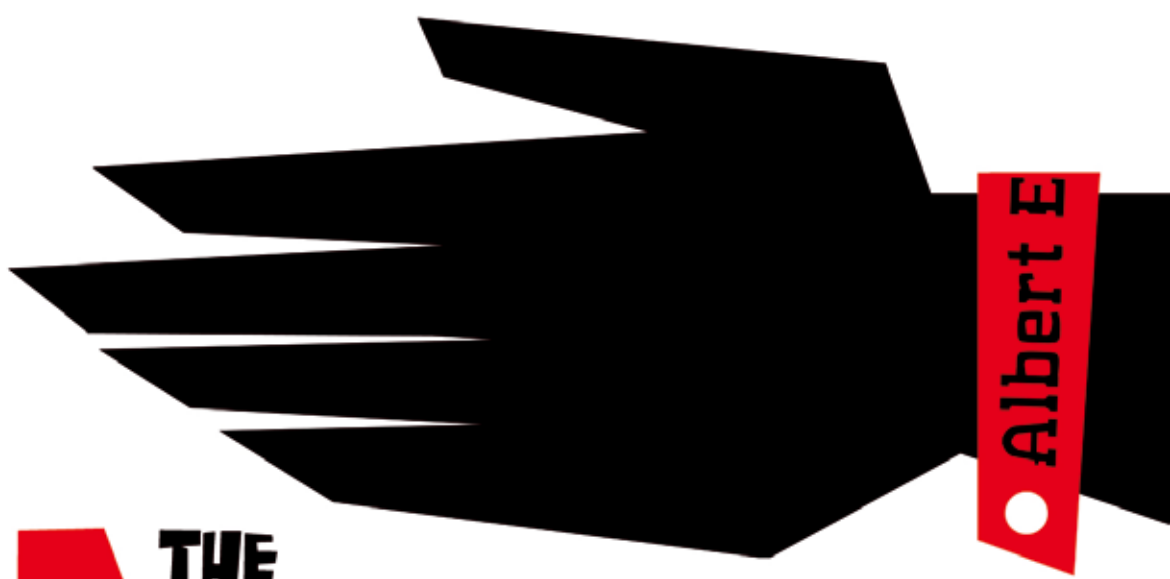
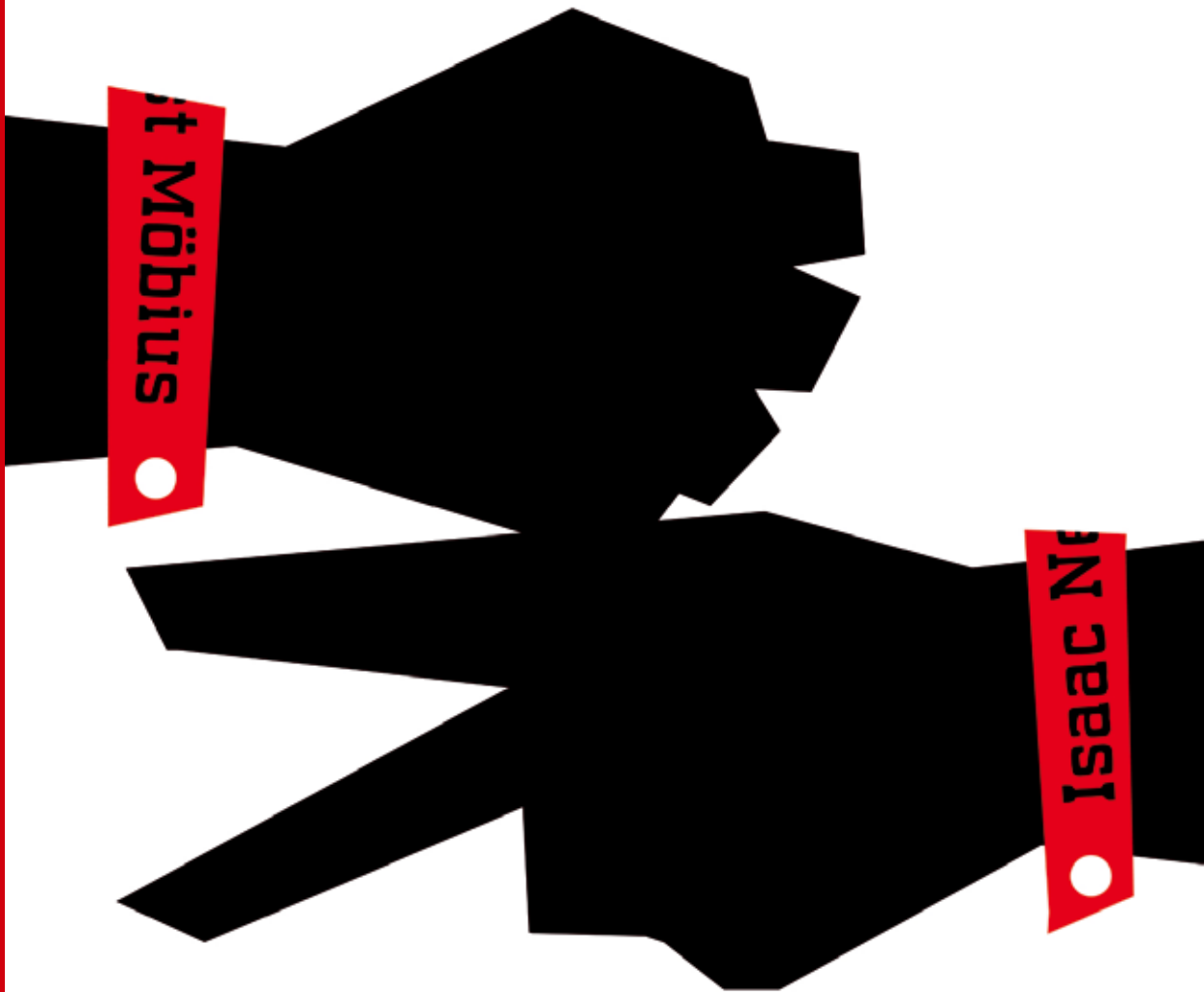


**DOMMAR®**



# **THE PHYSICISTS**

**BY FRIEDRICH DÜRRENMATT  
IN A NEW VERSION BY JACK THORNE**



## **Study Guide**

Written and Edited by Sam Maynard

Rehearsal Photography by Simon Kane

Production Photography by Johan Persson

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## Cast and Creative Team

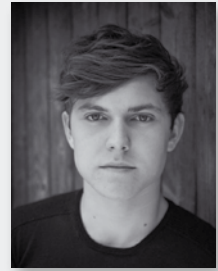
### **CAST** (in order of speaking)



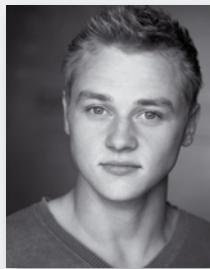
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Richard Voss  
**John Ramm**



Nurse Marta Boll  
**Joanna Brookes**



Blocher/Wilfried-Kaspar  
**Oliver Coopersmith**



Coroner/Adolf-Friedrich  
**Ben Hardy**



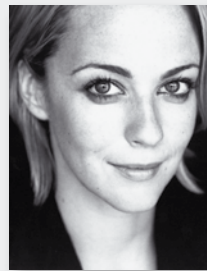
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aka Newton  
**Justin Salinger**



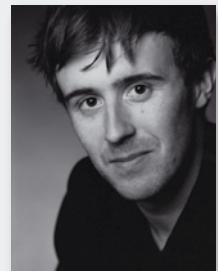
Dr Mathilde von Zahnd  
**Sophie Thompson**



Ernst Heinrich Ernesti  
aka Einstein  
**Paul Bhattacharjee**



Mrs Lina Rose /  
Nurse Monika Stettler  
**Miranda Raison**



Johann Wilhelm Möbius  
**John Heffernan**



Uwe Sievers  
**Adam McNamara**



Fantam 'The Phantom' Murillo  
**Obioma Ugoala**

## Creative Team:

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### JACK THORNE

#### AUTHOR

Jack's award-winning plays include *Bunny* (Nabokov UK tour/NYC), *Red Car Blue Car* for *Where's My Seat* (Bush), *Greenland* (co-written for the National Theatre), *2nd May 1997* (Bush/nabokov), *Burying Your Brother in the Pavement* (National Theatre Connections), *Two Cigarettes* (Bush), *Stacy* (Tron, Arcola and Trafalgar Studios), *Fanny and Faggot* (Pleasance Edinburgh, Finborough and Trafalgar Studios), *When You Cure Me* (Bush), *Paperhouse* (Flight 5065) and *Solids* (Paines Plough/Wild Lunch at the Young Vic). TV includes *The Fades* (BBC3), *This Is England 88* and *This is England 86* (with Shane Meadows, Warp Films / Channel 4), *Cast-Offs* (Eleven Film / Channel 4) and episodes of *Skins* and *Shameless*. Films include *The Scouting Book for Boys*, which premiered at the 2010 London Film Festival and for which won Jack the Best British Newcomer Award. Radio includes *People Snogging in Public Places* (Winner of Best Drama at the Sony Radio Academy Awards 2010), *The Hunchback of Notre Dame* (Winner of the Radio Award at Ability Media International Awards 2009), *Left at the Angel* and *When You Cure Me*. Jack is currently working on numerous TV and film projects and is under commission to the Royal & Derngate, Northampton.

### JOSIE ROURKE

#### DIRECTOR

Josie is Artistic Director of the Donmar Warehouse. Josie trained as the Resident Assistant Director at the Donmar Warehouse, was Trainee Associate Director at the Royal Court and Associate Director at Sheffield Theatres.

**For the Donmar:** *The Recruiting Officer*, *Frame 312*, *World Music*, *The Cryptogram*.

**As Artistic Director of the Bush Theatre:** includes *Sixty-Six Books*, *If There Is I Haven't Found It Yet*, *Apologia*, *Like a Fishbone*, *2,000 Feet Away*, *Tinderbox*, *How To Curse*.

**Other theatre:** includes *Much Ado About Nothing* (Wyndham's), *Men Should Weep* (NT), *Here* (Sky Arts), *Twelfth Night*, *Taming of the Shrew* (Chicago Shakespeare), *Crazyblackmuthafuckin'self*, *Loyal Women* (Royal Court), *My Dad's a Birdman* (Young Vic), *Believe What You Will*, *King John* (RSC), *World Music*, *The Unthinkable*, *Much Ado About Nothing*, *The Long The Short and The Tall*, *Kick for Touch* (Sheffield Theatres).

## ROBERT JONES

DESIGNER

**For the Donmar:** *Lobby Hero, Divas, Black Comedy, The Real Inspector Hound, A Voyage Round My Father.*

**Theatre:** recent work includes *Filumena* (Almeida), *Much Ado About Nothing* (Wyndham's), *The Wizard of Oz* (Palladium), *The Sound of Music* (Toronto/UK tour/Tokyo), *Calendar Girls* (Noël Coward/UK tour/Australia/Toronto), *Hamlet, Pentecost, The Herbal Bed, Romeo and Juliet, Twelfth Night, The Merchant of Venice, Henry VIII* (also New York), *Othello, The Winter's Tale* (RSC), *Look Back in Anger, Noises Off* (also West End/UK tour/Broadway), *The Playboy of the Western World* (NT), *The Mercy Seat, Ruined, There Came a Gypsy Riding, The Late Henry Moss* (Almeida), *The Music Man, Hay Fever, The Water Babies, Cyrano de Bergerac, Saturday Sunday Monday* (Chichester Festival), *Rebecca, Aspects of Love* (UK tour), *Scenes from a Marriage* (Belgrade, Coventry).

**Opera:** includes *Anna Bolena* (New York) *Tristan und Isolde* (Tokyo), *Giulio Cesare* (Glyndebourne/Lille/Chicago), *Le Couronnement de Poppée* (Paris/Berlin), *The Elixir of Love* (ENO), *Manon Lescaut* (Gothenburg), *Don Carlo* (Frankfurt).

**Film:** includes *Hamlet*.

Robert has also won a Canadian Dora Award and Drama Logue Award.

## HUGH VANSTONE

LIGHTING DESIGNER

**For the Donmar:** *Insignificance, The Front Page, The Blue Room* – Olivier Award also for *The Unexpected Man* (RSC), *Juno and the Paycock, Orpheus Descending, Uncle Vanya, Twelfth Night, Pacific Overtures* – Olivier Award, *Grand Hotel – The Musical, Mary Stuart, Small Change, A Doll's House, The Late Middle Classes.*

**Theatre:** recent work includes *Shrek* (Theatre Royal, Drury Lane/US tour), *Ghost* (Manchester/London/NY), *The Wizard of Oz* (Palladium), *Matilda* (RSC/Cambridge), *Deathtrap* (Noël Coward), *La Bête* (Comedy/NY), *The Real Thing* (Old Vic), *Arabian Nights* (RSC), *A Steady Rain* (NY), *Tanz Der Vampire* (Vienna/Stuttgart). Future projects include *Birthday* (Royal Court).

Hugh has designed the lighting for more than 160 productions and worked for most of the UK's national companies and extensively on Broadway. He also received an Olivier Award in 2000 for *The Graduate* (Gielgud) and *The Cherry Orchard* (NT).

## EMMA LAXTON

SOUND DESIGNER

**For the Donmar:** *Making Noise Quietly, The Recruiting Officer.*

**Theatre:** includes *Lady Windermere's Fan* (Manchester Royal Exchange), *Black T-Shirt Collection* (Fuel UK tour/NT) *Lay Down your Cross, Blue Heart Afternoon* (Hampstead) *Invisible* (Transport UK tour/Luxemburg), *The Westbridge, The Heretic, Off the Endz!, Faces in the Crowd, That Face* (also West End), *Gone Too Far!, Catch, Scenes from the Back of Beyond, Woman and a Scarecrow, My Name is Rachel Corrie* (also West End/New York/Galway Festival/Edinburgh Festival), *Terrorism, Food Chain* (Royal Court), *One Monkey Don't Stop No Show* (Sheffield Theatres/Eclipse), *Much Ado About Nothing, Precious Little Talent, Treasure Island*

(West End), *Where's My Seat?*, *Like a Fishbone*, *The Whisky Taster*, *If There is I Haven't Found It Yet*, 2nd May 1997, *Apologia*, *The Contingency Plan*, *Wrecks*, *Broken Space Season*, *2,000 Feet Away*, *Tinderbox* (Bush), *Charged* (Clean Break/Soho), *Men Should Weep*, *Shoot/Get Treasure/Repeat* (National Theatre), *Travels with My Aunt* (Theatre Royal, Northampton), *Sisters*, *My Romantic History* (also Bush), *The Unthinkable* (Sheffield Theatres), *Ghosts*, *The Gods Are Not to Blame* (Arcola), *A Christmas Carol* (Chichester Festival), *Pornography* (Birmingham Rep/Traverse/Tricycle), *Europe* (Dundee Rep/Barbican Pit), *Other Hands* (Soho), *My Dad's a Birdman* (Young Vic).

## MICHAEL BRUCE

### COMPOSER

Michael is Composer in Residence at the Donmar. He was previously Resident Composer at the Bush Theatre and the recipient of the *Notes for the Stage Prize* for song writing.

**For the Donmar:** *The Recruiting Officer*.

**Theatre:** includes *Noises Off* (also Novello), *24 Hour Plays* (Old Vic), *Sixty-Six Books* (Bush), *The Pied Piper and Musicians of Bremen* (Roundhouse), *Much Ado About Nothing* (Wyndham's), *Men Should Weep* (NT), *Ed: The Musical* (Edinburgh Fringe/Trafalgar Studios), *Michael Bruce at the Apollo* (Apollo), *The Great British Country Fete* (UK tour/Latitude Festival/Bush), *Christmas in New York* (Lyric/Prince of Wales).

**Orchestrations and arrangements:** includes *Friday Night Is Music Night* (BBC Radio 2), *Ruthie Henshall in Concert* (Guildhall), *Helena Blackman: The Sound of Rodgers and Hammerstein*.



# Friedrich Dürrenmatt and THE PHYSICISTS

## Friedrich Dürrenmatt – An introduction

Friedrich Dürrenmatt was born in Konolfingen, near Bern, Switzerland in 1921. A playwright, novelist, and essayist, his satiric tragicomic plays were central to the post-World War II revival of German theatre.

Dürrenmatt's educational passions were wide. After a difficult start at a Christian preparatory school, he developed an intense fascination for physics, mathematics, literature and philosophy. Dürrenmatt started his adult life as a painter, a decision that disappointed his religious family. Studying art at the University of Zurich, Dürrenmatt dismayed his teachers by following the German expressionists, rather than the impressionism followed by the school. Expressionism, like religion (or lack of it) can be traced through much of his work, and remained a lifelong influence. A brief period of military training in 1942 was ended by his poor eyesight: he later called the military 'nonsense', describing the tyranny of 'drill, yelling and eternal shoe polishing before roll-call'. After moving to Ligerz with his wife, the actress Lotti Geissler, he began writing political cabarets, radio plays, theatre review and essays. His first play, *It is Written* (1947) caused an uproar with its scathing representation of religious fanaticism. It is even said that fights broke out in the audience. Other plays include *The Blind Man* (1948), *Romulus the Great* (1949) *The Marriage of Mr. Mississippi* (1952), (which was produced in the United States under the title *Fools Are Passing Through* in 1958), *The Visit* (1956), *The Physicists* (1962), *The Meteor* (1966), *Play Strindberg* (1969) and *Portrait of a Planet* (1970). Dürrenmatt's work has been made into films many times. Most recently the 2001





film *The Pledge*, directed by Sean Penn and starring Jack Nicholson, was based on Dürrenmatt's novella of the same name. Dürrenmatt believed in the transformative power of comedy, writing that 'only comedy can deal with us. Our world has led us into the realm of the grotesque, as it has led us to the atom bomb.'

In 1970 Dürrenmatt decided to "[abandon] literature in favour of theatre," no longer writing plays but working to produce adaptations of well-known works. In addition to plays, Dürrenmatt wrote detective novels, radio plays, and critical essays.

Dürrenmatt died in 1990 in Neuchâtel, Switzerland.

## Dürrenmatt's Plays

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Dürrenmatt's plays owe a great deal to many different sources, genres and theatrical thinkers and practitioners, as well as having their own unique style. Writing in an introduction to a collection of Dürrenmatt's essays, scholar Brian Evenson noted that 'his plays show him to have been influenced by, but not beholden to, Bertolt Brecht, Georg Büchner, August Strindberg, Thornton Wilder, expressionism, and absurdist drama, among other things. Indeed, Dürrenmatt's drama draws from a number of distinct traditions without ever fully committing to any given one'<sup>1</sup>. Certainly, Dürrenmatt saw himself as part of a long tradition of playwrights, stretching back as far as Aeschylus and Aristophanes: 'You see yourself in a line. You see all that has been and think it through again.'<sup>2</sup>

As well as borrowing and drawing inspiration from many different styles of theatre, the subject matter of Dürrenmatt's writing was also extremely eclectic. He ranged from writing detective genre-fiction to plays about the fall of the Roman Empire (*Romulus the Great*), plays about religion and fanaticism (*It is Written*) and nuclear physics (*The Physicists*). However, throughout Dürrenmatt's work, there remain several key tropes: a desire to provoke, and to engage with big social and moral questions through the stories that he told:

*'My first drama created a scandal. I still thrive on this happy start: the audience, instead of yawning, booed.'*<sup>3</sup>

### Friedrich Dürrenmatt, speaking in 1969

He was also very interested in taking ideas and plots to their logical, and therefore often grotesque and absurd, extremes. Writing in an appendix to *THE PHYSICISTS*, Dürrenmatt argued that 'a story has not been thought through to its conclusion until it has taken the worst possible turn'<sup>4</sup>. This desire to push his stories to their extremes lends many if not most of his plays an extremely bleak edge; while he protested that 'I write only comedies'<sup>5</sup>, these plays explore the darkest elements of human nature. In *The Visit*, for example, a poor town is promised untold riches – provided they kill one of their citizens, allowing Dürrenmatt to explore the corrupting role of money on society through creating an absurd situation.

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1 Evenson, Brian. 'Introduction' in *Friedrich Dürrenmatt: Selected Writings Volume 3: Essays*, 2006

2 Friedrich Dürrenmatt, in an interview with Violet Ketels at Temple University, 1969.

3 Ibid.

4 Dürrenmatt, '21 punkte zu den'Physikern', *Die Physiker*, 1962.

5 Friedrich Dürrenmatt, in an interview with Violet Ketels at Temple University, 1969





*The Visit*, too, sees Dürrenmatt exploring one of his most common themes – the conflict between society and the individual, which he also explores in *THE PHYSICISTS*:

*'There are two ways to write drama today, as there are two ways to do nuclear physics: either describe society or describe the individual. The whole political mess today is the result of the problem of the relations between the individual and society.'*<sup>6</sup>

However, although Dürrenmatt's plays do explore important moral, political and social questions, he was clear that his work was rooted in storytelling: 'I don't start out with a thesis, but with a story'<sup>7</sup>. While the plays do intend to provoke and engage an audience with serious questions, within them Dürrenmatt also creates gripping plots, which veer between high comedy and moments of extreme tragedy, and characters and situations with which an audience can genuinely sympathise, even if their situations become absurd or grotesque.

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<sup>6</sup> Ibid.

<sup>7</sup> Dürrenmatt, '21 punkte zu den'Physikern', *Die Physiker*, 1962.

## The Physicists

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Written in 1961, and first performed in 1962, THE PHYSICISTS (*Die Physiker*) is one of Dürrenmatt's most celebrated plays, and is regularly performed in the original German. The Donmar's production, however, is the first major English-language revival of the play since Peter Brook's production in 1963.

The play combines many of the elements which came to define Dürrenmatt's work. It follows a classical structure, influenced by Aristotle's ideas of a unity of time, space and action – Dürrenmatt writes in the opening stage directions that 'a plot involving the insane can only handle a classical form' – but also owes a debt to more modern dramatic genres. At the end of the play, for example, three of the characters address the audience directly, in a manner reminiscent of Brechtian theatre.

The action of the play revolves around Johann Wilhelm Möbius, a physicist who for twelve years has been confined in the *Les Cerisiers* sanatorium, run by the renowned humanitarian and psychiatrist Mathilde von Zahnd. Along with Möbius are confined two other physicists, one believing himself to be Albert Einstein, and the other Isaac Newton. But are these men really mad, or is an insane asylum really just the safest place for people with such brilliant minds?

The plot of THE PHYSICISTS continually springs surprises, and as such it is difficult to describe the play directly without spoiling the intrigue of the drama. However, it is possible to examine some of the key themes of the play.

### Society and the Individual

*'Each attempt of an individual to resolve for himself what is the concern of everyone is doomed to fail'*

**Friedrich Dürrenmatt<sup>8</sup>**

As in many of Dürrenmatt's plays, one of the key themes of THE PHYSICISTS lies in the relationship between society and the individual – the responsibilities that individuals have to society as a whole, and the way that society treats individuals. The theme reappears throughout the play, but is most clearly broached by Beutler (aka Newton) in an early scene, when he asks Inspector Voss whether his greater crime is the murder of a nurse, or that he made possible the invention of the atomic bomb. This is one of the key questions of the play – are individuals only responsible for their own destructive actions, or do they hold a greater responsibility for what is done by others as a result of their discoveries or innovations? Beutler describes those who make use of scientific advance without fully understanding it as 'pimps', dismissing the responsibility of an individual scientist for the way that society makes use of his discoveries, but later in the play, it becomes increasingly clear that Möbius does not feel the same way; he believes that society as a whole cannot be trusted, and that it is the individual's responsibility to protect society from itself. Indeed, Möbius goes so far as to make enormous individual sacrifices for, as he sees it, the greater good.

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<sup>8</sup> Ibid.



## Power and Responsibility

The theme of society and the individual is intertwined in *THE PHYSICISTS* with an examination of power – the play asks where power derives from, who truly has power, and whether individuals can really be trusted to exercise power responsibly. The power relationships in the play are complex and shifting, and range from the petty (Voss being forbidden from smoking), to the brutal (Sievers and Murillo's raw power over the physicists), to the global (the power of nations over their citizens). The play also contemplates how much power humanity can cope with – in the climactic dinner scene, Möbius argues that too much power can only be destructive for humanity:

*'A new energy... do you really think humanity is ready for such advancement? For such – power?'*

This scepticism about human nature seems to be reinforced by the final climax of the play, which sees power residing in perhaps the most unexpected of places.

## The Purpose and Effects of Science

*'A drama about physicists cannot have as its goal the content of physics, but its effect. The content of physics is the concern of physicists, its effect the concern of all men.'*

**Friedrich Dürrenmatt<sup>9</sup>**

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<sup>9</sup> Ibid.

The play also tackles key questions about the purpose of scientific advance within society. Many of the scientific theories discussed in the play are Dürrenmatt's own inventions, but the ethical and moral dilemmas raised by them are firmly based in the real world. Beutler again demonstrates to Voss how one scientific advance, little understood by the majority of individuals, can have a hugely beneficial effect on society – the invention of the electric light. Möbius, however, sees only the potential negative applications of his work, and prefers to practise science unencumbered by the possibility that it might ever have a practical application – pure science. This raises the question of what science itself is actually for; is science for its own sake enough, or does it only have worth when scientific theory can be applied to the real world?

The play also raises profound ethical questions about the morality of scientific advancement. In the final scene, Möbius observes that 'what has once been thought can never be taken back', suggesting that the inherent danger of a persistent human desire for progress and new ideas is that humanity may stumble inadvertently on ideas which are in fact destructive.

Dürrenmatt, having witnessed the development and deployment of atomic weapons, and the developing Cold War arms race, was clearly referring to contemporary issues in examining this question, but this theme is still extremely relevant to twenty-first century society, and to debates within the scientific community today. Indeed, Dürrenmatt was at pains to point out that his play was not about science specifically, but rather about its implications: *THE PHYSICISTS* does not restrict itself just to examining one scientific idea, but is about the effects of science more broadly.

## **Madness**

*'We can stay in this madhouse, or the world will become one'*

### **Möbius, Act II**

A play set in a sanatorium is naturally concerned with the nature of madness, and the question of who truly is mad within *THE PHYSICISTS* is one of the most interesting aspects of the play. At first glance, it is clear that the three patients – two who believe themselves to be Einstein and Newton, and a third who believes himself to be visited by the biblical King Solomon – are the insane characters, but it becomes quickly apparent that in fact the situation is more complex. Dürrenmatt plays on comic tropes of madness – Newton's cavalier attitude to the murder of Nurse Irene Straub, and fastidious tidying of the scene of the crime – but also poses incisive questions about what in fact constitutes madness – the decisions that some of the characters make seem to be based on pure logic and rationality, but in fact their implications are so extreme that they appear to be acts of madness in themselves.

The play also seems to be taking aim at collective madness within society. As a play written in the shadow of the Cold War, Dürrenmatt seems to be suggesting that the nuclear arms race between the USSR and USA can in itself be seen as an irrational act.

## Context to the play

THE PHYSICISTS was written in a climate of unprecedented threat to global security, with two superpowers constantly on the verge of unleashing their nuclear arsenals on one another. The play satirises the politics of the Cold War, and the race by both the USA and the USSR to make the scientific breakthroughs that would ensure their dominance over the other. The play was first performed in Spring 1962, mere months before the Cuban Missile Crisis brought the world to the brink of nuclear holocaust. When Möbius says that 'There are risks that should never be taken: the destruction of humanity is such a one', there can be no doubt that Dürrenmatt was referring to the way in which the Cold War was risking human existence itself.







## **The Cold War: A brief introduction**

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Even before the end of the Second World War, tensions between the communist USSR and the capitalist West had begun to emerge. Although notionally allies in the war against the Nazis, many in the USA and Great Britain were deeply concerned about the threat of communism spreading from Russia, while the USSR, under Joseph Stalin, wished to expand their sphere of influence. As the Nazis were pushed back across Europe, therefore, both parties began to prepare for this new confrontation. At the Yalta and Potsdam conferences in 1945 between Britain, the USA, and the USSR, Europe was effectively carved up into two areas of influence, with the Eastern bloc of nations under Communist control, and the Western nations broadly capitalist. These two spheres of influence converged in Germany, which itself was split into two. After the final defeat of Germany in May 1945, these plans became a reality.

This division set the scene for half a century of 'Cold War', a conflict that never quite escalated into open warfare, but which was marked by a mutual distrust and enmity between the two sides. The Cold War was marked by many 'flashpoints' – moments or events which seemed to threaten to push a fragile peace into direct warfare. Moments like this included the Berlin Blockade of 1948-49, the Korean War of 1950-53, and, most famously, the Cuban Missile Crisis of 1962, in which the world came close to the brink of nuclear war for the first time.

The Cold War was made increasingly dangerous by the development on both sides of a series of new and more deadly weapons of mass destruction. The Second World War had effectively been ended by the dropping of two nuclear bombs on Japan by the USA, the first time that such weapons have been used. This extraordinarily destructive action levelled two cities to the ground, killing thousands instantly, and changed the nature of warfare forever. Suddenly, armies were able to wreak more destruction in a single action than could have been managed by months of intense bombardment, and a war with the potential to wipe out humanity became a real possibility. As the tensions between the USSR

and the USA escalated, both sides began to develop weapons of increasing sophistication, building up a large enough stock of weapons to destroy one another many times over, and always seeking to create new weaponry which would give them military dominance over their enemy.

This arms race resulted in an uneasy stalemate, in which neither power was prepared to use their nuclear weapons against the other as they would retaliate in kind, risking a real nuclear holocaust. This bizarre deadlock became known as Mutually Assured Destruction, or more commonly MAD, which was rather appropriate for the situation.

## The Arms Race – A Timeline

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- 1939:** The US President, Franklin D. Roosevelt, receives a letter from Albert Einstein and a number of other European scientists informing him of atomic research and of the potential for an atomic bomb, and expressing a fear that Nazi Germany may develop an atomic weapon. Roosevelt forms a committee to investigate this.
- 1942:** The US government begins a top secret project, known as The Manhattan Project, to build an atomic bomb. This programme grew to eventually employ over 130,000 people, and cost over \$2 billion (equivalent to more than \$25 billion today).
- 1945:**
- July 16:** The United States conducts the world's first nuclear test explosion in New Mexico.
  - August 6:** An American B-29 bomber drops the first atomic bomb on the Japanese city of Hiroshima. It detonates 1,900 feet above the city, completely devastating more than 4 square miles of the city, and killing up to 100,000 people in an instant. By the end of the year, the fallout from the blast will have killed 145,000 people.
  - August 9:** The USA drops a second atomic bomb on the city of Nagasaki, destroying much of the city and killing almost 40,000 people, with 25,000 injured.
  - August 14:** Japan surrenders, bringing the Second World War to an end.
- 1946:** The first United Nations resolution calls for the 'elimination from national armaments of atomic weapons'. These early attempts to restrict the growth of nuclear military technology are unsuccessful.
- 1948:** Soviet troops block Western supply routes to the German capital, Berlin, leaving the Western areas of the city lacking food and fuel. This develops into one of the first major flashpoints of the Cold War. The blockade is broken by a continuous airlift by the US and UK Air Forces, flying over 200,000 flights to supply the people of Berlin with 4700 tonnes of daily necessities.
- 1949:** The Soviet Union detonates its first atomic bomb in a test in Kazakhstan.



- 1950:** American President Harry Truman orders the Atomic Energy Commission to develop the hydrogen bomb, a weapon with the potential to be far more powerful than previous technology.
- 1952:** The United Kingdom carries out its first successful test of a nuclear bomb, becoming the third nation with nuclear capability.  
  
The United States detonates the first hydrogen bomb on an atoll in the Pacific Ocean. The explosion has a force almost 700 times more powerful than the bomb dropped on Nagasaki.
- 1953:** The Soviet Union announces that it has developed the hydrogen bomb. This leads to acceleration in the arms race between the USA and USSR.
- 1954:** The USA launches its first nuclear submarine.
- 1955:** The Russell-Einstein manifesto is published, which calls on governments to find peaceful solutions to their problems, in order to ensure 'the continued existence of mankind'. It is signed by eleven pre-eminent intellectuals and scientists, including Bertrand Russell, Albert Einstein, and Linus Pauling.
- 1957:** The Soviet Union launches the earth's first artificial satellite, Sputnik, stunning the USA, and demonstrating the potential for the USSR to loft warheads into the United States.
- 1958:** The USA launches the first Intercontinental Ballistic Missile (ICBM), a long range nuclear missile.
- 1960:** France tests its first nuclear weapon.
- 1961:** **Friedrich Dürrenmatt writes THE PHYSICISTS.**
- 1962:** USA spy planes discover Soviet missiles on the newly communist island of Cuba, just 90 miles away from the coast of Florida. The US reacts by blockading Cuba for thirteen days, resulting in a stand-off between the USA and USSR which brought the countries to the brink of nuclear conflict. Eventually, US President Kennedy and Soviet Premier Khrushchev make a covert deal involving the removal of missiles from Cuba in exchange for the removal of US missiles from Turkey.

Although the arms race continued long after the Cuban Missile Crisis of 1962, this was the moment that brought the world closest to nuclear war. After this, a hotline between the United States and USSR was established, to prevent accidents and further crises, and both parties signed a treaty banning the testing of most nuclear weapons. Hostilities, however, did not cease until 1989, with the collapse of the Soviet Union.

## Science and the Cold War

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The Cold War arms race was fuelled by a number of extremely significant scientific advances, many of which were made without any appreciation of the practical applications that they would have, and the destructive power they would unleash. Both the USA and the USSR recruited the most highly respected physicists from across the world to help them advance their technology, whether willingly or unwillingly. In the USA, the top secret Manhattan Project, initiated during the Second World War, brought scientists together from across the globe, and resulted in the creation of the first atomic weapons in 1945. Following the end of the war, the Atomic Energy Committee was created, to continue to develop this technology.

In the Soviet Union, efforts to develop nuclear weapons were accelerated after the end of the Second World War, and were greatly advanced by information obtained by Soviet spies in the American nuclear programme. Spies, most notably Klaus Fuchs, working within the Atomic Energy Committee, illicitly passed information to the USSR, leading to the development of a successful Soviet nuclear bomb by 1949. This led to an atmosphere of great mistrust, even within the Atomic Energy Committee itself, with many top scientists falling under suspicion of espionage.





## The Real Physicists

THE PHYSICISTS concerns three fictional physicists, but many of the issues and problems that the characters struggle with and discuss in the play were being grappled with by scientists on a daily basis when the play was written. One of the fundamental questions of the play is whether scientific advance is desirable, even if the consequences of those advances are potentially extraordinarily destructive. Scientists disagreed violently on these issues, and within the Manhattan Project itself, three individual scientists can be seen to have embodied the differing attitudes to these questions:

**Joseph Rotblat** was a Polish physicist from a Jewish family who specialised in atomic physics, who realised before the outbreak of the Second World War that his work had the potential to lead to the creation of an atomic weapon.

*‘Rotblat’s first thought was “to put the whole thing out of my mind.” Science should serve mankind, and the idea that a scientific discovery should be used to produce such a weapon was abhorrent. Only a few months earlier, however, Nazi Germany had increased its power at the Munich settlement, and Rotblat could not banish the fear that German scientists, who had first discovered fission, might put their talents at the service of their state.’*

**Irwin Abrahams**<sup>10</sup>

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<sup>10</sup> Irwin Abrahams, ‘The Nobel Prize in Peace’, *The Nobel Prize Annual*, 1995.

Having escaped Poland for Great Britain just before the Nazi invasion, Rotblat joined the Manhattan Project to produce an atomic weapon for the Allied forces, deciding that if the Nazis were to develop a bomb, an Allied bomb would be needed as a deterrent. However, by 1944, as it became apparent that a German bomb would not be developed, Rotblat's discomfort with the venture once again surfaced and he asked to leave the project. He was subsequently accused of planning to defect to the USSR, although much of the evidence produced to support this turned out to be fabricated.

Following the end of the Second World War, Rotblat became one of the most prominent campaigners against nuclear proliferation, becoming the youngest signatory of the Russell-Einstein manifesto and becoming heavily involved in the influential Pugwash Conferences, which advocated nuclear disarmament. He was awarded the Nobel Peace Prize for this work in 1995.

**J Robert Oppenheimer** is regarded as the father of the atomic bomb, having headed up the Manhattan Project, which resulted in the detonation of bombs over Hiroshima and Nagasaki in August 1945. Born to an American Jewish family, Oppenheimer was a brilliant scientist who conducted research in a number of diverse areas of physics, before setting up the Manhattan Project in 1942. As well as overseeing the vast administrative task of supervising such a large organisation, Oppenheimer was also intimately involved in the science of the project.

Following the detonation of the first atomic bomb in a test in New Mexico in July 1945, Oppenheimer famously quoted from the Hindu holy text, the Bhagavad Gita: 'Now I am become death, the destroyer of worlds'. His attitude to the continued development of nuclear weapons after the end of the Second World War was more ambiguous than was Rotblat's – although Oppenheimer initially opposed the development of the far more destructive hydrogen bomb, this was mostly for technical reasons rather than because he morally objected. He opposed the use of nuclear weapons as a form of 'gunboat diplomacy', and was clearly concerned by the ethical implications of the creation of these weapons of mass destruction, but never expressed regret about his involvement in the creation of the first atomic weapon.

Following his achievements within the Manhattan Project, Oppenheimer's career was dramatically stalled in the early 1950s when he was investigated by the Un-American Activities Committee. Accused of having Communist sympathies and of having links to the Soviet Union, he was stripped of his security clearance and lost his position within the Atomic Energy Committee. While many intellectuals and scientists testified on his behalf, he was also testified against by a number of colleagues, including Edward Teller. Although he was later offered a form of reprieve by the US government, the experience marked Oppenheimer deeply.

**Edward Teller** was a Hungarian-American physicist, who became known as the 'father of the hydrogen bomb'. Teller worked on the Manhattan Project along with Oppenheimer and Rotblat, and following the end of the Second World War, continued to work to develop the hydrogen bomb, which was based on nuclear fusion rather than fission, and had the potential to be greatly more powerful than the bombs exploded over Hiroshima and Nagasaki. Teller's work was at first criticised by his peers, but following the Soviet development of an atomic weapon in 1949, the American desire to create a hydrogen bomb was greatly accelerated, and the first successful test of such a device was carried out in late 1952.

Unlike Oppenheimer and Rotblat, Teller seemed not to experience any qualms about the development and use of nuclear weapons. Following the development of the hydrogen bomb, he became a fierce advocate of the further development of increased nuclear proliferation and defence spending, and advocated the use of nuclear explosives for non-military uses. He strongly opposed the Nuclear Test Ban Treaty, and took steps to aid an Israeli attempt to develop nuclear weapons. Teller is often considered to have been one of the inspirations for the character of the mad scientist Dr Strangelove in Stanley Kubrick's film of the same name.



## Inside the Rehearsal Room

### **An Interview with Jack Thorne, Author**

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**What was it about *The Physicists* and Friedrich Dürrenmatt that made you think this would make an interesting project for adaptation?**

Josie Rourke [the Artistic Director of the Donmar] approached me with this project and suggested that I would be a good fit to adapt it. I really didn't know what to expect – I had never seen or read the play before, and didn't know anything about the writer, but it sounded like a great opportunity.

Then I read the play and fell completely in love with it. Dürrenmatt looks at the world from an angle which is really compelling and unusual, and I really enjoyed that. As well as *THE PHYSICISTS*, I've now read everything that I can find that he has written.

A lot of my work is about people who are searching for or trying to achieve greatness – I don't know why that is – maybe out of a deluded sense of self worth, or self hatred – but it's something that I keep returning to – on stage and screen. What interested me about this play was that Dürrenmatt looks at this from a different angle – what if you are already great? What kind of responsibilities and challenges does that present to someone? So while my work is about people struggling – and failing – to become great, this play is about people struggling with their own greatness – he has a really compelling and beautiful way of thinking about the world.





**You are an established playwright in your own right. How much is the process of adaptation a struggle between your own impulses as a writer and a desire to be faithful to the original text?**

It's tricky – when I sat down to work on this play, I initially tried two versions . First, I tried a radical version in which I imposed a lot of myself on it, and played around with the text heavily, particularly with the beginning of the play, which I wanted to try and give more pace.

But after a while I realised that I couldn't touch it in terms of structure – Dürrenmatt has crafted his play so finely, and it fits together so well, that I began to appreciate that if you play around with it too much, there is a danger that the whole castle will fall down.

So my job became more about being a translator of ideas. The play is so beautifully formed, complete and brilliant that it works very well without needing to do a lot to it. Dürrenmatt has embraced the Aristotelian ideas of time, space and action in the play, and I realised that with a play like this, you needed to.

I do a lot of book adaptations, and quite a lot of the work when doing that is about discovering the story – peeling away the layers of onion to find the heart of the story. The difference when working on THE PHYSICISTS was that I realised that it was perfectly formed as it was – I could just put the onion in the oven and bake it!

**Did you make any particular choices in terms of style about your adaptation?**

I wanted to be more robust than perhaps I could have been in my adaptation, and to make definite choices in terms of the tone. Josie was very keen that we establish what the tone of this piece was – it had a very particular tone which was of the time and of the place in which it was written, and so I needed to find a new tone for now.

One of the particular decisions that I wanted to make was about the character of Möbius. In the versions of the play that I had read, Möbius seems to hop between being a tragic hero and someone with real moments of comic flippancy. In my version, I wanted to make the character's journey much more tragic. Nurse Monika's death, in particular, I wanted to be a really tragic moment.

The play is full of such extraordinary characters, and I wanted to make sure that at the centre was a character who was in fact very real. I think that this was Dürrenmatt's original intention, but I think it had perhaps got lost slightly in translation.

**How easy is it to write a character who is mad, or pretending to be?**

All the characters are so clever that they are consistent within their madness, so that makes it easier to write them. The question of who is really mad is one of the most important questions within the play, but those characters who seem to be feigning madness have created such detailed characters within themselves that they are very consistent. Writing inconsistent characters would have been tough. This consistency gives coherence to the play, so that the actors have something to play and that audiences have something interesting to watch.

One might assume that the choices that Mathilde von Zahnd makes, for example, make her mad, but the positions that she advocates at the end of the play aren't mad ones – she seems likely to do things which are very selfish, but this doesn't necessarily make her mad.



**The play's protagonist is the most brilliant scientist who has ever lived. Did you have to grapple with any complicated science during the adaptation process?**

Yes, it was very important to get to grips with the science within the play. I did a lot of reading around the theories discussed, and found it really difficult – I haven't done any science since I was a teenager, when I got a 'B' in my Combined Science GCSE. But I found it very interesting – some of the theory in the play is created by Dürrenmatt, and some of it is real, so it was interesting to see the distinction.

I needed to understand what the scientists were talking about when they discussed their theories – for example, when Möbius reveals that he has solved 'the problem of gravity', what does that mean? I had assumed that the problem of gravity had been solved by Isaac Newton when he discovered the existence of gravity, but it's a lot more complicated than that! These are huge unanswered questions, and my task was to understand the questions, rather than trying to understand the answers, so that I could fully understand the implications of what he is saying. So yes, I did a lot of looking at books.

We got very lucky in that two of our cast members (Paul Bhattacharjee and Obioma Ugoala) understand physics pretty well, so that when the cast had questions in the first week of rehearsals I wasn't the only one relied on to answer them!

**When the play was written it was very clearly inspired by contemporary global events. Do you think that what the play has to say, particularly in terms of the ethics of scientific advance, is still relevant today?**

Dürrenmatt was writing during a time of great nuclear fear, which is a time we still live in, to some extent. The difference is that when he was writing, nuclear power was seen only as a destructive force, whereas now, nuclear power might be seen as a solution to many of our problems. Rather than a nuclear fear, we now have a carbon fear, with a potential nuclear solution. I worked on a play called *Greenland* for the National Theatre, and as part of my research I talked to Professor John Shepherd, who was the director of the Institute for Climate Change Research, and he told me that he is far more frightened of the impact of carbon on the earth than he is about nuclear energy.

But this isn't just a play about energy or bombs, it's about a possible future in which advances in science might make the world a better place. I really think that man in his essence is good – I don't have the cynicism that Möbius does. I think man will cope with scientific advancement. In fact, I think that what he could be offering the world is freedom – my favourite philosopher is Rousseau and at his essence he thought man was good but corrupted by society – he said the world started to go wrong when someone said 'this is mine'. Society, based on property, has tarnished man's essence. Möbius's scientific advancement offers profound change, he thinks that with that profound change society will corrupt itself further – I think that maybe profound change might lead to the alleviation of some of the ills of society by returning man to his essence.

What's beautiful about the play of course is that it encourages you to think about such things as what man's essence is. It's one of the many things I love about it.

**The very end of the play marks a real change in style in the piece. Why is that, and how did you go about tackling it?**

To end the play like that was Dürrenmatt's decision. I toyed with cutting it, but in the end it felt intrinsic to the play – by having the three physicists directly address the audience, I think what he is doing is presenting the problems of the play to the audience in the real world, and leaving them with some big thoughts at the end of the play. I left the speeches more or less as written, and just tidied them up a bit.

The end is also only the third time that the atom bomb is mentioned. Einstein says: 'I love humanity and I love my violin, but at my recommendation they built the atom bomb', and it suddenly seems to resonate for the first time, because the audience are being presented with the problem so directly. He meant that bomb to land and I think it does.



## **An Interview with John Heffernan, playing Johann Wilhelm Möbius, and Justin Salinger, playing Herbert Georg Beutler, aka Newton, during technical rehearsals**

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**When you first read the play, what were your initial impressions of your characters?**

**John:** For me, the play read a bit like a thriller, and I was genuinely just turning the pages to see what happened; I got so engrossed by the story and it takes so many twists and turns. It's the only play I've done that, when people ask me what happens in the play, I say, 'actually, I'm not going to tell you a single thing about it, and you should just come', because I think it's so intriguing.

In terms of the character I'm playing, Möbius, what intrigued me was somebody who makes an absolute decision very early on in the play and then has that severely tested by various events and characters emotionally and intellectually. It's quite an extreme position that he takes, and I suppose that the challenge has been to make that understandable to an audience, and to make him empathetic, to make an audience understand where he might be coming from, with that decision.



**Do you agree with the decision that he makes?**

**John:** I do, but then I'm biased! I think that the play was written at a very particular time, although I think it's got a lot to say now, but because it was written at the height of the Cold War, with all of these dangers that were so immediate and so present and so terrifying, I think that the solution that Möbius comes to is completely rational and understandable, and I think it speaks to a very human instinct to hide yourself away sometimes. Although Möbius is a very extreme case, choosing to lock himself away for twelve years in a lunatic asylum, I think everyone can understand those moments where you go 'Actually, this is all too much'.

**Justin, you are playing a character who seems to be hiding behind layers of character that he himself has built up. As an actor, how do you go about approaching that?**

**Justin:** It's tricky. When I first read the play I kept thinking, 'who is this character?' because every other page he kept revealing himself to be somebody completely different, and I had to read right to the end of the play to find out exactly who he actually was.







As an actor approaching it, you have to look at it very logically – who is this man, and why is he doing what he is doing? After that it becomes pretty straightforward, I think – he’s a man with a character to perform in order to get into this crazy asylum. I love the character that he chooses, and I think that there’s a lot of himself in it – he’s very flamboyant, very extravagant, and also rather camp. He’s based himself on Newton, so I’ve learned a bit about him – don’t test me, though!

**Have you done a lot of research into the science behind the play? John, at one point in the play you write a very complex-looking formula on the back wall of the set. Is that a real scientific formula?**

**John:** It is, yes – the character is meant to be, in the most intimidating way possible, one of the most intelligent people that has ever lived, so the idea is that he’s able to just come up with these extraordinary scientific feats which other incredibly intelligent men have been battling away with for years, like Newton and Einstein.

So, without wishing to give too much away, very early on in the play he has an episode, and so we had the idea that maybe, just off the cuff, he scrawls something across the wall of the set, but it happens to be, this incredible, real, formula. So we did a bit of research and came up with this actual physics formula. Don’t ask me exactly what it’s the answer to – I don’t really know! But hopefully if there are any physicists in the audience, they might understand it.

**I also notice that you're reading a book on the physicist Oppenheimer. What draws you to him particularly?**

**John:** Oppenheimer's very interesting for me because he was a great scientific mind who was betrayed by the CIA and abandoned by his country, and ended up a sort of pariah figure – he's not the same as Möbius who volunteers to step away from the world around him, but he was also rejected, and so I found that very interesting. He was an incredible mind – some of the stuff that he did aside from the science is particularly interesting. When he was a student at Harvard in 1921/22, he wrote a poem which speaks of being imprisoned and needing the company of people, which I've found incredibly useful for this.

That isn't the only research I've been doing, though – the Faber book of Madness has also been very helpful! And there's a Henry James short story which is slightly about insanity, so there have been various things which I've been looking at.

**There's a potential in the play for characters to seem like they are almost in different plays: the characters seem to have very different trajectories, and there are moments which are very comic sitting alongside moments of real tragedy. How did you approach that in rehearsals to make sure that everything fits together?**

**Justin:** John and I are playing vastly different sorts of character – polar opposites really.

**John:** They are polar opposites. I've only realised how different the characters are from one another since we've been running the play, and putting certain sections together. I think that actually that's the brilliance of the writing, that the play contains such diverse characters and styles. At first, I was fighting it. On the whole, the role I have is essentially quite serious, and there's one section in the play, for instance, where it's extremely heightened, and hopefully quite shocking, and then, without wanting to give too much away, Justin's character comes on, and the mood just completely changes, he completely undermines it. At first, I have to admit, I thought to myself, 'what's going on here?', but actually, it's just extraordinary writing, because if you get it right, it should be hugely enjoyable to watch, but also there's a dislocation in tone, which means that hopefully the audience don't know where to position themselves in relation to it either, so they're wondering whether they should be laughing or not.

**Justin:** I had a similar experience – I was fighting some of the lines that I had during rehearsals, because they just felt so wrong in some places, but then, when we ran the play, it suddenly changed. I remember trying one out, putting a line back in that I had tried to take out, and suddenly it felt really right, within the context of a run.

**Do you think there's a moral to the play? What do you think the audience will take away from it?**

**John:** My personal opinion is that the best plays, the great plays, always raise more questions than they answer. I'm always very suspicious of plays that sound like editorials, which try and tell you that there's one solution to a particular problem or question. As an audience member I always feel like I've had a much more enriching experience if the play sets lots of things off in my head, and I think that's what this play does – it questions and interrogates all manner of moral and ethical dilemmas.

**Justin:** I think it raises lots of questions and ideas not only in terms of content, but also in terms of its style and form. I don't think there's anything else on stage quite like it – I've certainly never been in anything quite like it. So I think the audience will come away thinking what an extraordinary piece of theatre it is in terms of the style and ambition of it.

**On a more practical level, how have you found the transition from working in the rehearsal room to performing on the Donmar stage? Have your performances changed?**

**Justin:** For me, the problem with working on all the three sides is this enormous wig that I have to wear as Newton, which covers most of my face, and means that I have to do an extraordinary amount of work – a lot more than I had to do in the rehearsal room, in terms of turning and moving my whole head, to make sure that everyone can see my face. I'm going to come out with a really strong neck!

**John:** Josie's been fantastic in getting us to sit and watch from every side of the stage when we've not been onstage in the rehearsal room, so we've got ourselves very accustomed to the playing space. So that hasn't been a massive shock. There are certain things that are quite technically tough in the production, which we're acclimatising ourselves to now, but in general I think that we are very well prepared.





## **Resident Assistant Director Hannah Price's Rehearsal Diary**

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### **Week One:**

The week kicked off with an extraordinary read through. The cast were immediately a company, gelled and supportive. Each new line met with the response it warranted as the cast gathered around each other as they read.

Unsurprisingly THE PHYSICISTS is a play that contains an extraordinary amount of science - and a scientific approach was needed to find a way into the text. Josie led the cast in tackling the play backwards: by reading the last scene first and working backwards through the text each argument was seen from its conclusion, and thoughts could be devolved back to genesis. By working in this way Jack Thorne and Josie were able to see any issues in the text, and work with the cast to resolve any last dramaturgical problems that still existed.

The discussions resulting from the piece have been wonderful: I for one have never been in a rehearsal room where the philosophy of a play so directly encroaches on the wider world: do we believe that humanity is essentially good? Is the furthering of scientific knowledge an end in and of itself? Can knowledge be owned? If so, does owning knowledge carry an innate



responsibility? Where do the boundaries of this responsibility exist, if at all? And who places them if they do exist? These questions form the backdrop of this extraordinary play, and considering them has been a joy.

As the week wore on the cast began to reveal themselves: and what surprises lay in store! Hidden expertise and past careers emerged. Paul Bhattacharjee (playing Einstein) revealed an excellent knowledge of physics and took on the explanation of the unified field theory and how the Large Hadron Collider works. Questions on the law or policing were answered by Adam McNamara (playing Uwe Sievers, and a police officer for seven years), queries regarding criminality and madness are taken by Joanna Brookes (playing Marta Boll who has worked with inmates in Broadmoor). With this hidden expertise in our midst, conversation is flowing.

The week ended with another extraordinary read through; all script changes were in place, and the actors imbued the text with a wealth of knowledge discovered through discussion. A fantastic first week.

## **Week Two**

Here we are at the end of week two; a week of madness, megalomania and mayhem in equal measure!

The week begins with a German pronunciation lesson. The lovely Ingrid Schiller is a native German speaker. She starts by teaching the group a few phrases, with the aim of embedding key elements of German pronunciation. We then study the pronunciation of each of the names in the play, followed by mentions of places and other German words. Josie actually speaks German, which is immensely helpful to cast, and makes further exploration easier. Decisions are made both about unifying pronunciation, but also about which words are unhelpful to pronounce in a Germanic fashion. Einstein, for example, is said with the german 'sch', making it Einschtein. This is decidedly unhelpful the first time you hear it: as the brain takes a few moments to recognise the famous name, every other intention is undercut. Möbius's umlaut gives the first part of his name a long and slightly comic 'oooo', which we have chosen to shorten in an effort not to make every mention of Möbius sound faintly silly.

The week moves on with the continuance of last week's work, moving towards getting the piece on its feet. We start with a safe compromise: the stage is marked up, furniture is in place and the actors can roam around their space.

We sit in a circle on the stage and read. Close analysis of each scene throws up more discoveries and the odd cut. The script is in wonderful shape: Jack and Josie's initial work means it is extremely robust. Tiny changes are easy to make as the overall argument of the piece is very present. Sophie Thompson (Dr. von Zahnd) discusses her character's plan: how far back does it lead? How much has she controlled? Both large themes and individual line analyses are discussed.

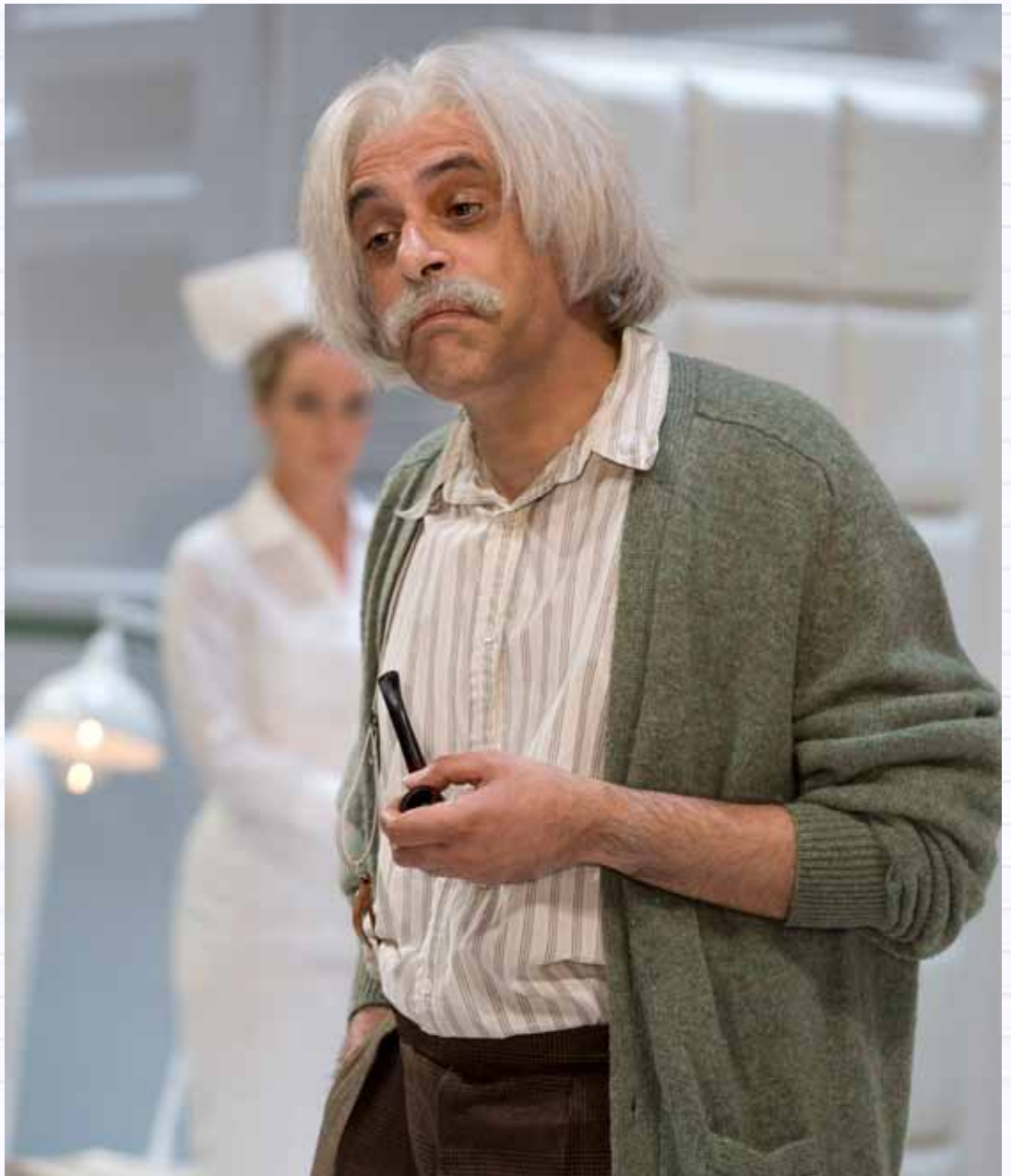
Mid week, we graduate from chairs on the stage to standing. Voss (John Ramm) strides into his character like the ineffectual detective he is. Marta Boll

(Joanna Brookes) exerts her power through the extraordinary sardonic tones of someone who knows they have less power than they'd like.

Then we meet our physicists. As Newton, Justin Salinger tries to make himself simply 'appear'. Like a slinky cat he roams the stage exuding an uncanny intelligence. Einstein's first entrance is beautifully judged by Paul Bhattacharjee, who's befuddled bumbling belies a deeper intelligence.

And at last we meet Möbius. John Heffernan is completely and utterly compelling as he sends away his wife (Miranda Raison). His show of madness is so tangled with his sense of responsibility that it is impossible to discern what is pretence and what is real. A treat of a performance even in these early stages.

The addition of music has added one last element of oppression to the piece. The sense of enclosure is palpable as Einstein 'saws away' at the Kreutzer Sonata. A fantastic week, by turns exciting, emotional and gregarious, giving tantalising glimpses of what is to come.





### **Week 3:**

This week has been a week of wonderful contradictions. We have continued our chronological exploration of the script, putting it on its feet and working through it step by step. The work is pacy, strong and satisfying. The script is robust and seems to contain the shape of the staging within the writing. The comedic excellence of the opening scene is realised with speed and flair. Additional flourishes are played with and decided upon: the sound of a match lighting and a camera flash add punctuation, a look between two employees quickly establishes the status of their boss. Marta Boll (Joanna Brookes) and Detective Voss (John Ramm) have refined what was an already extremely enjoyable relationship, touched with sardonic status games. Blocher (Oliver Coopersmith) and the Coroner (Ben Hardy) have settled into a routine that both illuminates the scene and controls focus, pushing the attention to the dialogue that surrounds them.

We see Oliver and Ben again, playing Möbius' two boys. The scene is a mountain of contradictions: funny and heartbreaking, mad yet beautiful, dark yet hopeful. The broken family is symbolised by interrupted recorder playing: a mournful, almost comic tune becomes spooky and affecting as the context of the playing is realised. The two boys are a beautiful little family unit in their own right: as the older brother, Ben is protective of his sibling; their father's growing madness pushes the two boys closer together. The encroaching mania has something inherently comic at its core, and yet the scene is deeply sad and emotionally draining.

Friday saw the arrival of Bret Yount, our Fight Director. We have several elements of fight choreography in the play: lifting dead bodies safely, a 'lunge' at Mathilde von Zahnd, and most importantly, a strangulation scene – a pivotal moment in the play. This holds its own contradictions: it is a tender killing, a loving murder. The scene is also part of a grander staging element; Josie is keen to recreate the opening scene by having the second murder echo the aftermath of the first. This extra touch has several brilliant effects; the repetition is both uncanny and satisfying. As soon as several elements of the first murder scene are recreated, the audience know that the victim is doomed. Bret, Josie and the actors work through each element of the death: each section is carefully managed, each effect studiously created. A final foot twitch, a kiss, a shared look: the strangulation is like a brutal ballet, another deeply dark contradiction in a week of contradictions.

### **Week 4**

In week one, Josie used a Gielgud quote that has been incredibly useful: 'style is knowing what play you're in'. With this play, this is an interesting concept. *THE PHYSICISTS* seems to hold many genres and styles within its text. It is alternately comedic, tragic, and romantic. It holds both an Aristotelian dramatic structure, and absurdist tropes within its walls. It builds to a classical tragic denouement, yet is one of the funniest plays I have read. Identifying what play you are in, is therefore, much harder than in sounds. What was incredibly clear from the run, however, was that the cast had no such problems. The play moves seamlessly between styles, each separate section

clear and whole in its own right. This is extremely satisfying and creates a delightfully full dramatic experience. It is also occasionally unsettling as the plays shifts from one style to another: a laugh in the midst of tragedy, a sudden reminder of death in a comic event. This, however, is felt like a tremor that runs through the overall shape of the piece. It is an extraordinarily well crafted play, and every aspect of the production reflects this.

The sense of style in each section has been achieved with a purity of intention. Every aspect is explored. In week four this has meant two separate visits to The Ivy. On Monday Obioma Ugoala (Murillo) and Adam McNamara (Sievers) made their visit. They need to move like 'swans on a lake of lava' as they lay out a table for the patients. The Ivy was kind enough to share their extraordinary service techniques with us: opening wine bottles silently, dressing and undressing a table in minutes, approaching the table from an open angle so your back is never to the patron. Each element is taken on and used, creating a unity of character for our boys. On Wednesday we were back with Justin Salinger (Newton) learning how to carve chicken with aplomb, and finding out about the wine that the physicists are served. While on both occasions a lot of fun was had, the experience was serious. Each actor was determined to learn the skill and take it in to themselves before playing with it as their character. Like learning a dance, the steps are learned before flourishes added or elements adjusted to suit the intention. What was also incredibly serious was the perfectly cooked chicken: The Ivy is not one of the most famous restaurants in the world for no reason!

This strength of intention is exemplified throughout the play, and running the play in its entirety really brought this to the fore: John Heffernan's portrayal of Möbius's madness is complete and committed. Miranda Raison's heartbreak as Lina is consuming, Sophie Thompson is full, rounded and frighteningly present as Dr. von Zahnd. The play moves its audience to each new element with a seamless energy, pushing us into new discoveries.

As we move into week five, I couldn't be more excited to see the production develop further, and all its styles polished to an even higher shine.

## **Week Five**

Week five has been all about finesse: running the play as often as possible and working through notes has enabled us to find an alacrity of playing that contains both precision and pace. Josie has a useful metaphor: at this point the play is an elastic band, it is stretching out but retaining its shape, and the work we do in week five is to help it to snap back into full performance pace. This is most notable in the debate scene, central to the second half. It needs to both inhabit a lightness of playing and a strength of meaning. The debate is compelling and contains some complicated ideas: the actors need to play the debate with precision, without letting the flow of ideas move faster than they do. It needs to be driven forward with a strong sense of intention, and it must be fluid, direct and light to bring the audience along for the ride. This week has seen the debate bed in, and discover its inherent light and shade. It is now an extraordinary part of the play: incredibly compelling, interesting and illuminating.

Other sections that have benefited from this week's fine tuning are Möbius' madness scene and his love scene with Monika. While these scenes are functionally very different they share some similarities. They contain strong shocking elements, in an absurdist casing, meaning the actors have to move between the naturalism necessary to play the emotional content of the scenes and remain open and receptive to the more comedic elements. Both scenes involve a necessary precision of action: props are paramount, and the action plotted and practised, repeated and rehearsed. Both scenes are physically draining and have a strong tragic fatalism. Both scenes have been worked through this week to unlock them: they are extraordinary. Open, affecting and emotional, the work undertaken this week to add precision to the base of each scene has allowed the scenes to soar.

So now we move into tech with a fully rounded, precise, finessed production: fully snapped back into shape. I can't wait to see it on stage and watch it fly.



## Practical Exercises

### Before seeing the production

Read through the scene below, and then have a look at the exercises that follow:

**In this scene, Johann Wilhelm Möbius, who has been a patient in the *Les Cerisiers* asylum for twelve years, is visited by his ex-wife and two sons for the last time before they leave the country forever.**

DOCTOR VON ZAHND    My dear Möbius. You have visitors. Please come out.  
*Johann Wilhelm Möbius comes out: a somewhat awkward man. He looks uncertainly around the room, observes Mrs Rose, then the boys. He remains silent.*

MRS ROSE    Johann Wilhelm.  
 ADOLF-FRIEDRICH    Father.  
 WILFRIED-KASPAR    Daddy.  
*Möbius remains silent.*

DOCTOR VON ZAHND    My dear Möbius, I hope you can still recognise your wife for me.  
 MÖBIUS    *(Stares at Mrs Rose.)* Lina?  
 DOCTOR VON ZAHND    Of course – your Lina.  
 MÖBIUS    Of course – my Lina.  
*This is oddly formal and fully moving. There's something sincere and true about these people.*

MRS ROSE    And you are my Johann Wilhelm, my dear, dear Johann Wilhelm.  
 DOCTOR VON ZAHND    There. It's done. I'll leave you to your privacy. Mrs Rose, if you would like to speak to me again, I'll be at your disposal over in the new building.  
*She exits, and There is the longest pause the play can sustain. Möbius looks at Mrs Rose who looks back. Then he looks at the boys.*

MÖBIUS    And these are...  
 MRS ROSE    Your boys.  
 MÖBIUS    Both? Both are...mine?  
 MRS ROSE    But of course. *(She gestures Adolf-Friedrich forward.)* This is Adolf-Friedrich, your oldest.  
*Möbius shakes his hand.*

MÖBIUS    Yes. Of course. Pleased to meet you, Adolf-Friedrich, my oldest son.  
 ADOLF-FRIEDRICH    Hello Father.  
 MÖBIUS    And how old are you, Adolf-Friedrich?  
 ADOLF FRIEDRICH    Fifteen, Father.  
 MÖBIUS    A good age. And what do you want to be?  
 ADOLF-FRIEDRICH    A philosopher, Father.  
*Möbius is surprised.*

MÖBIUS    A philosopher?  
 MRS ROSE    A particularly precocious child.  
 ADOLF-FRIEDRICH    I've read Schopenhauer and Nietzsche. I disagree with them both. But agree with them too.





MÖBIUS  
ADOLF-FRIEDRICH

How exciting for you.  
*(pointedly)*  
Well, it's only through doubt that we find our answers isn't it?  
*Möbius frowns at Adolf-Friedrich.*

MÖBIUS

I couldn't say.  
*He looks at Adolf Friedrich again – who is looking very intently back. Mrs Rose coughs slightly, Möbius snaps out of it and turns to his other son.*

MÖBIUS  
MRS ROSE  
WILFRIED-KASPAR

And you are?  
This is your youngest, Wilfried-Kaspar. He's fourteen.  
Hello, Daddy.

MÖBIUS  
MRS ROSE  
MÖBIUS  
WILFRIED-KASPAR

Hello, Wilfried-Kaspar, my youngest son.  
A great comfort. He reminds me most of you.  
Well, that's... I'm pleased that comforts you.

WILFRIED-KASPAR  
MÖBIUS  
WILFRIED-KASPAR  
MÖBIUS

And I'd like to be a physicist, Daddy.  
*(Stares at his youngest son in shock.)* A physicist?  
That's right, Daddy.

WILFRIED-KASPAR  
MÖBIUS

No. You aren't allowed, Wilfried-Kaspar. Under no circumstances. Put that right out of your head. As your Father. Dad. Daddy. I – I forbid you.

MRS ROSE  
MÖBIUS

*(Confused)* But you became a physicist, Daddy –  
I should never have become one, Wilfried-Kaspar. Never. If I hadn't, then I wouldn't be in this asylum today.  
Your nerves were shot, that's all.  
*(Shakes his head.)* No, Lina. I'm insane. King Solomon appears to me. Don't let him. Please don't let him become a physicist. As your husband.... I forbid you.

*An embarrassed silence.*

MRS ROSE	But you're not my husband.
MÖBIUS	I'm not?
MRS ROSE	We are divorced, you know that.
MÖBIUS	Divorced?
MRS ROSE	But you know that.
MÖBIUS	No.
MRS ROSE	Doctor von Zahnd told you. Very definitely. <i>Möbius looks at her as if analysing a problem.</i>
MÖBIUS	Possibly. Yes. Possibly.
MRS ROSE	And I am marrying again – I've married again. I've married a man called Rose, Oscar Rose. He has six boys. He was rector in Guttannen and has now accepted a position to minister on the Mariana Islands.
MÖBIUS	The Mariana Islands?
MRS ROSE	In the Pacific Ocean. We're boarding a ship in Bremen the day after tomorrow. <i>Möbius remains silent, the others are uncomfortable.</i>
MÖBIUS	The day after – tomorrow.
MRS ROSE	Yes. We're here to say goodbye. <i>There is a horrible pause.</i>
MÖBIUS	Good. I'm happy that the boys have found a capable father. I was an inadequate father.
MRS ROSE	Johann Wilhelm don't...
MÖBIUS	I extend my heartfelt congratulations to you all.
MRS ROSE	I just....please don't make this more difficult. We have to go soon.
MÖBIUS	To the Mariana Islands. In the pacific ocean.
MRS ROSE	And we must – must – say goodbye to each other. And properly.
MÖBIUS	Forever.
MRS ROSE	Yes. Forever.

Read the scene through out-loud as a group, around a table. This is the first time that we meet the character of Möbius – discuss what, if anything, we learn about him from this scene.

Once you have read the scene through once, try roughly staging it. As you do, try and answer the following questions:

1. What sort of room does the scene take place in?
2. When was the last time that the boys saw their father? Are they excited to see him now? Scared? Unsure?
3. Möbius is a patient in an insane asylum. How does his madness manifest itself to his family? Does this change during the scene? When does it change?
4. How does Mrs Rose feel about leaving Möbius for another man? Does she feel guilty? Relieved? How does this affect the way she behaves towards him?
5. As a group, try and identify three moments within the scene in which the mood changes. How can you make these changes clear to the audience?

With all of these questions, try out several different approaches, and see which one works for you.

- In the scene following this one, Möbius reveals to a nurse that he 'played the madman' so that his wife and children could leave him with a clear conscience. With this in mind, try playing the scene again, giving Möbius the intention to alienate his family as much as possible. How does this affect the scene? How do the family respond?
- As you are working through the text, think carefully about the pace of the scene. The script calls for quite a number of pauses and silences – how can you make sure that you obey the stage directions, while still making sure that the scene does not drag?
- Once you have seen the Donmar's production, compare and contrast your interpretation of the scene with what you have seen on stage.

### **After seeing the production**

- Discuss the play and the production as a group. What do you think about the decision that Möbius makes? Would you make the same decision if you were in his place?
- The play was responding to a particular set of events and issues that were relevant when it was written. How do you think the play is still relevant today? Have a look at the interview with Jack Thorne in this study guide, and compare your ideas with his.
- In rehearsals for the Donmar's production, the company worked through the text backwards first of all, rather than forwards. Why do you think they did this?
- Pick one of the characters, and make two lists: one which lists everything that you know about them by the end of Act One of the play, and one which lists everything that you know about them by the end of the play. How are these lists different? Consider how you would approach this character as an actor.



## Primary Sources:

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THE PHYSICISTS by Friedrich Dürrenmatt, in a new version by Jack Thorne, Donmar rehearsal script.

Interview with the author with Jack Thorne, May 2012

Interview by the author with John Heffernan and Justin Salinger, May 2012

Observation by the author of the rehearsal process, May 2012

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## About the Donmar Warehouse

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The Donmar Warehouse is an intimate not for profit 252 seat theatre located in the heart of London's West End. Since 1992, under the Artistic Direction of Sam Mendes, Michael Grandage, and now Josie Rourke, the theatre has presented some of London's most memorable theatrical experiences and has garnered critical acclaim at home and abroad. With a diverse artistic policy that includes new writing, contemporary reappraising of European classics, British and American drama and musical theatre, the Donmar has created a reputation for artistic excellence over the last 19 years and has won 43 Olivier Awards, 26 Critics' Circle Awards, 25 Evening Standard Awards, two South Bank Awards and 20 Tony Awards from ten Broadway productions. Alongside the Donmar's productions, we offer a programme of Education events, which includes subsidised tickets, introductory workshops and post show discussions, as well as special projects which give young people an opportunity to involve themselves more closely in the work of the theatre.

For more information about the Donmar's education activities, please contact:

Education Department  
Donmar Warehouse  
41 Earlham Street  
London WC2H 9LX  
T: 020 7845 5822  
F: 020 7240 4878

W: [www.donmarwarehouse.com/education](http://www.donmarwarehouse.com/education)