

# Chemistry in theatre – Carl Djerassi’s swansong

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*Carl Djerassi (1923–2015) has contributed a canon of literary works that attempt to bridge the gap between the ‘two cultures’, viz. literature and science. This article focuses on his last work of fiction titled ‘Chemistry in Theatre: Insufficiency, Phallacy or Both’. The preface of this book details his vision of ‘chemistry-in-theatre’, his three-stage method of writing a science play, and the concept of ‘plays on the page rather than plays on stage’. This is followed by two plays representative of Djerassi’s vision and method, titled ‘Insufficiency’ and ‘Phallacy’, which the present article seeks to explore.*

**Keywords:** Chemistry-in-theatre, literature and science, science plays, swansong, theatre and performance studies.

CARL DJERASSI’S contribution to the interdisciplinary field of literature and science is evident in his vast body of work, which includes *Cantor’s Dilemma* (1989), *The Bourbaki Gambit* (1994), *An Immaculate Misconception: Sex in an Age of Mechanical Reproduction* (2000) and *Oxygen* (with Roald Hoffmann; 2001), among others. His research on cortisone and the oral contraceptive pill is well-known in the field of chemistry. The present article analyses Djerassi’s final work of fiction, in which he presents his method of writing science plays in the most distilled form. Djerassi’s *Chemistry in Theatre: Insufficiency, Phallacy or Both* (2012) comprises a preface and his two swansong plays. In the preface, Djerassi details his vision and process of creating a science play, anticipating a broader engagement in future between the ‘two cultures’, viz. literature and science.

## Preface to Djerassi’s *Chemistry in Theatre*

In the preface, Djerassi examines the dearth of chemistry plays in the field of science-in-theatre and asserts that the paucity of plays representing the field of chemistry definitely matters. In his usual analytical style, Djerassi delves deep into the topic of science plays and formulates the definition of a ‘play’. According to him, a play is ‘a form of literature written by a playwright, usually consisting of scripted dialogue between characters, intended for theatrical performance rather than just reading’ (Djerassi vii). Being an experienced playwright, Djerassi modifies the last part of the conventional definition of theatrical performance. At this juncture, he introduces the readers to the idea of ‘plays on the page rather than plays on stage’. The closest equivalent in literary circles to Djerassi’s vision is closet plays meant to be read and not performed. Some iconic

examples of closet plays include John Milton’s *Samson Agonistes* (1671) and Thomas Hardy’s *The Dynasts* (1903–08). Djerassi acknowledges that most playwrights would disagree with his idea of ‘plays on the page rather than plays on stage’, as the performative aspect of theatre is a well-established field. The written play usually serves as a starting point for the fields of theatre studies and performance studies. Both these fields are prospering and rapidly drifting away from the written play. In this regard, the critic Kirsten Shepherd-Barr’s observation in *Science on Stage: From Doctor Faustus to Copenhagen* (2006) is worthy of mention: ‘Over the last twenty years or so, the subject of performance has received tremendous attention and has permeated several other fields in addition to establishing itself as a subject of study in its own right, “performance studies”. This generally implies that theatre is old-fashioned, conservative, and not innovative or groundbreaking, while performance studies imply cutting-edge advances in theatrical endeavours. Many theatre scholars find this “false dichotomy” troubling, especially if it indicates future directions in theatre studies (216).

Djerassi posits that with the unusual exception of George Bernard Shaw’s plays, most classical plays, including those of Aristophanes, Shakespeare, Molière and Schiller, are usually only read and not performed (Djerassi vii). Substantiating his argument for ‘plays on page’, he discusses Shepherd-Barr’s *Science on Stage*, which contains an appendix that lists science plays from the past four centuries. Djerassi critiques such a listing as many of these plays engage superficially with science and have neither been published nor performed. In his review titled ‘When is “science on stage” really science on stage’ in *American Theatre*, Djerassi remarks:

‘In such a “half-full-and-rapidly-filling glass” prognosis for plays with scientific content, one must note that focusing simply on the number of plays with some

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science in the title or text written during the past 10 years without considering their performance history is equivalent to counting the number of unpublished science book manuscripts that may have been written during the same period but never read by anyone but the author's pals. In the final analysis, a book is only a book after it has been published, and a play is only a play after it has been staged or otherwise made available to the public'. (96)

Djerassi also mentions that E. S. Zehelein's *Science: Dramatic. Science Plays in America and Great Britain 1990–2007* (2009), another influential text in the field, suffers from the same limitation. Several plays mentioned in this book are unpublished and inaccessible to readers and scholars.

Djerassi's modification to the classical definition of a play regarding its performance aspect appears justified. Further, he formulates the concept of 'plays on the page rather than stage' and gives a twofold reasoning for such a conceptualization. He reasons that all these plays – classical, modern or otherwise are infrequently performed. As a large number of these plays are part of the literary canon, their appearance is chiefly in the school curriculum. After detailing his reasons for choosing the form of closet drama, Djerassi makes one of the most crucial arguments. He postulates that reading a science play, rather than performing it, could be a source of motivation for some playwrights. In a self-proclaimed didactic manner, he contends: 'What's wrong with encountering a new play first as a reader and only subsequently as a viewer? Understanding the text before watching the play will in many instances greatly increase the pleasure of seeing it performed' (viii). Djerassi's approach is practical based on his 15 years of experience with science plays in general and chemistry plays in particular. He names these fields 'science-in-theatre' and 'chemistry-in-theatre' respectively. Djerassi approves of the theatrical performances and the underlying scientific content in the plays of Simon McBurney's theatre company called Complicité. According to Djerassi, the *Mnemonics* (1999) and *A Disappearing Number* (2008) are stellar examples of science plays. However, the 'use of video, movement, music and sound design, in addition to text, makes it largely resistant to attempts to capture and pin down in traditional script form' (ix). Science plays should be accessible to a larger audience in the form of readable text. Limited access to the performance of science plays encourages writers to adhere to Djerassi's celebration of 'plays on page'.

### Djerassi's vision and method

The inaccessibility of science plays becomes much more evident if we take into account writers and audiences from the Global South. A large number of science plays are either unpublished or out of print. Audiences and researchers worldwide cannot possibly have access to live performan-

ces of these plays. There is a demarcated Euro-American dominance in the field of science plays, as a majority of them are written and performed only in Europe and America. Therefore, Djerassi's view on the access to the performance of science plays is a pointer in the right direction. Substantiating this point, Djerassi mentions that 'Books can be read where theatres do not exist; books can be read by people who do not go to the theatre; and if their content is of literary and thematic value – the sole criterion for the existence of any book – then they are of timeless value' (ix). The written word appears more effective for the dissemination of scientific knowledge.

Having discussed his vision of science plays, Djerassi lays down his method of writing such plays. He suggests to science playwrights three stages of developing a science play. The first stage involves writing a play solely meant to be read. This is in line with his play-on-page suggestion. The second stage entails developing the play to be read dramatically for an audience, such as a radio 'play or a play' for blind people. This gradual upscaling necessitates adding more details to the text, resulting in a more layered experience. The final step would be to revise and rewrite the play to be performed on stage before an audience. Citing the lack of availability of the published versions of a large number of science plays, Djerassi argues that such a three-staged approach ensures a more comprehensive reach of this genre. Also, the literary success of these plays increases the chances of a theatrical performance and eventually leads to commercial success. Such an approach ensures the availability of plays for readers, performers and researchers. Several science plays in India have been written, but not many are available in print form. For instance, Shanti Swaroop Bhatnagar (1894–1955), the luminary chemist, wrote a play titled *Karamati* under the guidance of theatre practitioner Norah Richards. The play dealt with the use of science to dispel superstitions. However, it is not available anymore in print form. While playwrights, theatre critics and scholars of theatre and performance studies might disapprove of Djerassi's method, it seems logical and has worked for his plays.

Djerassi explains his method by drawing attention to plays that belong to the field of chemistry-in-theatre. He first takes up the example of *Oxygen* (2001). Co-authored with the Nobel laureate Roald Hoffmann (1937–), the play focuses on the chemical revolution and is firmly grounded in history. In this play, the authors re-emphasize the didactic and pedagogic value of science-in-theatre. The play problematizes the idea of discovery in two different periods. Djerassi admits that while writing the play, the authors had imagined it to be a traditional one that would be performed on stage. However, it reached broader audiences due to its publication by a major scientific publisher (Wiley-VCH). The success of *Oxygen* on both fronts vindicates Djerassi's science-in-theatre conceptualization, as a large number of traditional science plays are neither frequently performed nor published. It demonstrates that a publication-focused

approach to writing a science play is more realistic. Djerassi discusses three science plays that, according to him, can be qualified as chemistry-in-theatre, namely Jerzy-Noël Fenwick's *Les Palmes de M. Schutz* (1989), Stephen Poliakoff's *Blinded by the Sun* (1996) and Vern Thiessen's *Einstein's Gift* (2009). The first is a light-hearted drama portraying the scientific activities and budding romance of Marie and Pierre Curie. *Einstein's Gift* dramatizes the life and scientific activities of the Nobel laureate Fritz Haber, whose discoveries were misused in chemical warfare. Djerassi refers to *Blinded by the Sun* as an example of an 'outright chemical play' by a non-scientist playwright. It focuses on scientific fraud in a university and accurately depicts the 'behavioural characteristics of academic scientists' (xvi). There is a decided gulf among chemistry playwrights, reviewers, critics and directors. According to Djerassi, this gulf stems from a fear of the subject due to incomprehensibility, but it does not apply to plays dealing with mathematics and physics. He attributes this phenomenon to a lack of relatable metaphors in the field of chemistry. Finally, Djerassi maintains that for a successful science play, the playwrights should aim to 'keep the science impeccable, but underplay it' (xvii). He suggests that they should not focus on what scientific activity is done, but on why and how it is done. Citing the examples of his last two plays that are discussed below, Djerassi asserts that he has decided to 'emphasize the human aspects with easily comprehensible excursions into the scientific terrain...' (xviii). In the following section, we analyse Djerassi's last two plays with respect to his vision and method.

### Djerassi's last two plays – *Insufficiency* and *Phallacy*

*Insufficiency* is an academic drama that details the quest for the tenure of an immigrant chemistry professor, Jerzy Krzyz. In American universities, gaining tenure is one of the highest accomplishments. Djerassi explains:

'In a field such as chemistry, it often means leading sixty- to eighty-hour work weeks for at least six years after years of pre- and post-doctoral studies, during which time much of ordinary life – leisure, cultural enjoyments, family and child-rearing, sometimes even sex – falls by the wayside or becomes extraordinarily difficult. Yet we do it voluntarily because tenure offers subsequent security and independence for life – or so we assume' (xviii).

Krzyz, or Jean de la Croix, as he prefers to be called, works in the esoteric field of beer and champagne bubbleology. Working in such an unconventional research field puts him in a difficult position in his department, hindering his quest for tenure. Djerassi dedicates this play to the acclaimed masters of beer and champagne bubbleology,

Richard Zare (Stanford University, USA) and Gérard Liger-Belair (University of Reims, France). The play opens in a courtroom where a prosecutor questions Jerzy about the deaths of Prof. Aspinall and Prof. Sehlig. They were conveners of Jerzy's tenure committee and were found dead two hours after drinking the champagne that Jerzy served. Jerzy is an expert in beer and wine bubbleology, and the cause of death is embolism. The prosecutor points out to the jury and the judge that Jerzy named the champagne bubbles 'killer flowers'. Sometime earlier, Jerzy had met the chairman of the chemistry department, Leo Bramble and demonstrated in his office the bubbling of ginger ale. This event resulted in volcanic bubbling and the liquid flowing over Bramble's desk. Jerzy also wrote down the proposed equation that can be used to determine the frequency of bubble formation. Jerzy explains his research to Bramble as follows:

Jerzy: Please, one more minute. Let me start from the beginning. Any carbonated beverage – for instance, champagne – is only slightly supersaturated with carbon dioxide dissolved gas molecules. Bubbles – what we see and taste – don't just come out of nowhere. The carbon dioxide molecules must first bunch together and push through the liquid before appearing as bubbles. But you need nucleation to promote bubble formation, and I just showed that to you by pouring salt into ginger ale.

Bramble: You are wasting my time. Are you telling me you pour salt into champagne to get it to bubble?

Jerzy: No, I'm only telling you that in champagne, it's mostly micro cellulose fibers on the walls of the glass.

Bramble: What fibers?

Jerzy: Fibers held together on the wall by electrostatic forces caused by wiping a champagne glass with a dish towel. (11)

Djerassi adheres to his method of keeping science impeccable but underplaying it. He is not just 'telling what the characters do...' but '...emphasize[s] how and why they do it' (xviii). Further, to demonstrate the principles of bubbleology, he uses pictures in the text and details the scientific activities and calculations elaborately. In doing so, he paints a vivid picture for the readers. This is in line with his 'plays on page' strategy.

Djerassi dramatizes the struggle to obtain tenure and portrays the ordeal potential candidates undergo in academia. Bramble shows empathy for Jerzy's complicated situation, but as the chairman, he is compelled to enforce the rules for granting tenure. Bramble discloses to Stephania, the office secretary and a close friend of Jerzy, about the latter's tenure. Jerzy demanded that his tenure case be taken up in the upcoming meeting. The chairman advises Jerzy

to consider delaying his tenure application by a year so that he can showcase a few publications. Stephania, too, asks Jerzy to postpone his tenure proposal. Jerzy was promised tenure within a couple of years of joining the department but felt discriminated against because of his immigrant status. Jerzy strongly believes that he should be granted tenure as he fulfils all the criteria and has obtained a considerable number of grants. His work is not appreciated since the grants are from beer and champagne production companies, which are not conventional science-funding agencies. Jerzy explains his situation as follows:

Jerzy: What's wrong with Dom Pérignon? A company making champagne is as much a chemical company as one making a pesticide or a laxative.

Stefania: Maybe they don't take it that way.

Jerzy: They?

Stefania: The others who will vote on your tenure.

Jerzy: They're envious. They spend most of their time writing grant proposals that get turned down, while I get mine almost by return mail. But they should be thankful for all the overhead I'm bringing to the department. (19)

Jerzy refuses to publish his work as he does not 'want to show my [Jerzy's] hand to the real smart guys out there' (20). He loses his tenure proposal as 17 members vote against him. Bramble requests Stephania to accompany Jerzy for dinner, where she tells him he should publish some 'serious' papers (25). The playwright takes up the issue of the relative value of journals as Bramble and Stephania repeatedly nudge Jerzy to publish in 'significant' journals. Djerassi questions the varied importance of research topics and journals by highlighting the comparative merit of different research fields from the viewpoint of publications and funding.

Djerassi's portrayal of the human aspect of chemists' lives is commendable. He dramatizes the same and includes the underlying chemistry, staying true to his dictum of chemistry-on-stage. Jerzy demonstrates to Bramble that beer without foam is less bitter and furnishes his paper titled 'capillary-driven flower-shaped structures around champagne bubbles collapsing in a bubble raft at the surface of a liquid of low viscosity'. Bramble points out the absence of references in the paper, to which Jerzy replies that there is a paucity of research in the field. He strengthens his argument by stating that this is the reason for the generous financial support for his work. Further, Jerzy highlights that he dislikes 'salami publishing', i.e. taking one piece of work and churning out multiple papers from it (28). Bramble disapproves that Jerzy's work might interest restaurants and the food industry. However, it will not help him secure tenure. Jerzy informs Stephania that he will withhold

the results of his work for his tenure case as he wants to patent his findings. Interestingly, his Polish students use the Polish language to maintain their laboratory notebooks to prevent others from snooping into their scientific findings. The prosecutor questions Bramble, pointing out that tenure is the point of contention in this case, and he suggests to the judge and the jury that not achieving tenure recommendation is the probable cause for murder. The prosecutor probes into the reason for Jerzy's lack of publications. Bramble replies that Jerzy worked extensively but chose not to publish as he wanted to keep his work a secret. The ease with which Jerzy obtained funding, even without many publications, was a cause of envy for his colleagues. The play throws light on the issue of secrecy in academic laboratories, the politics of tenure and funding, and the race to file a patent for a novel idea.

Djerassi deliberately chooses the courtroom drama format to represent the conflicts of a chemistry department, allowing the plot to unfold itself before the audience and readers. The to-and-fro dialogic conversations during the courtroom scenes unravel the plot. The questioning during the trial establishes that belches and flatulence would have been the worst outcome, even if Jerzy had spiked the champagne. The prosecutor questions Stephania, who discloses that Jerzy offered her champagne, but she refused to drink, claiming that wine gives her headaches. After the trial, Bramble and Stefania engage in a conversation, and the latter reveals that she has married Jerzy, who has moved to Poland and filed a patent for his findings. Jerzy specifies that the patent will be issued to the university, and the royalties will be divided amongst the university, department and a special endowment fund for a professorship in nanotechnology. Jerzy intends to name the endowment 'The Aspinall and the Sehlig Memorial Professorship in Nanotechnology', in memory of the two professors who passed away. The play does not offer a conclusive answer regarding the cause of death of the professors. Although Jerzy's decision to move back to Poland and establish an endowment in his deceased colleagues' names can be viewed as an admission of guilt, Djerassi ends the play on an indecisive note, leaving the plot open to interpretation.

Djerassi employs the thespian medium to convey the peculiarities of research in chemistry, including obtaining a recommendation for tenure and the various aspects related to publishing. This aligns with his idea of not telling but showing and developing 'plays on page'. The play depicting the inner workings of a chemistry department provides a novel view for general readers and a way of looking inward for scientists and science students.

The second play *Phallacy*, is concerned with ethics and idiosyncrasies across the cultures of science and arts. Djerassi dedicates the play to Alfred Vendl (1946–) and Bernhard Pichler (1974–) at the Institute of Art and Technology, University of Applied Arts, Vienna, experts in bronze dating and preservation. In the play, a scientist and an art historian examine a sculpture from their perspectives, and a

conflict ensues regarding its age. The play opens in a museum, where Dr Regina Leitner-Opferman, the director of the antiquities department of the museum, delivers a lecture to a group of high-school students on bronze casting.

The play revolves around the dating and authenticity of a bronze statue supposedly of Roman origin. Leitner-Opferman has written a book on the sculpture, and this work establishes her as the leading artistic authority on the statue. Dr Rex Stolfuss, the head of the art conservation department, disagrees with Leitner-Opferman's methodology and conclusion regarding the age of the sculpture. While Leitner-Opferman bases her research on art history and qualitative analysis, Stolfuss counters her using chemical trace analysis and nickel content. He explains that sculptures of the Roman era have very low nickel content. The bronze sculpture in question has a high nickel content, a typical feature of Renaissance bronze sculpture:

Stolfuss: Your sculpture contains a lot of nickel. Rather typical of Renaissance bronze. [Beat]

Leitner-Opferman: Say that again.

Stolfuss: The nickel content of the sculpture is typical of Renaissance –

Leitner-Opferman: [Interrupting] And you told this to the museum director?

Stolfuss: Of course.

Leitner-Opferman: Instead of coming to me?

Stolfuss: But ... he was the one who requested we examine your statue. Anyway, what matters here is the nickel content.

Leitner-Opferman: You're saying that our sculpture could not be of Roman origin? That all Roman bronzes, without exception, had low nickel content?

Stolfuss: I didn't say without exception. (60)

Both experts engage in a heated discussion and they set out to prove their respective points. Emma Finger is the assistant curator of the Renaissance art department, and Dr Otto Ellenbogen is the assistant to Stolfuss respectively, and they are in a relationship. Finger and Ellenbogen continue to interact with each other despite the ongoing stand-off between their superiors, and they agree to keep their interactions a secret. To Leitner-Opferman's surprise, Stolfuss wants to publish his results, nullifying years of Leitner-Opferman's hard work and harming her academic reputation. Leitner-Opferman elaborately lists the details of the sculpture to Finger, and their conversation establishes Leitner-Opferman's affinity with and authority over the

subject. This sheds light on the qualitative method of analysis of a sculpture. Leitner-Opferman admits that she has made a mistake, and it needs rectification. The next scene shows Stolfuss in conversation with Ellenbogen. The latter finds a flaw in the sculpture, as a plugged hole is on top of its head. Opening it reveals that the sculpture walls were 20 mm thick instead of the Roman standard of 5 mm. X-ray microanalysis and thermoluminescence data corroborate this discovery made with the naked eye.

Djerassi explains every detail using a monologue that paints a vivid picture for the readers. He gives references, and Uniform Resource Locator (URL) links to artworks within the play's text. This allows the readers to visualize the materials portrayed on stage and enjoy an immersive experience. The play is easily comprehensible as Djerassi provides links for visual inputs according to his 'plays on page' strategy. Also, such information would help the director to adapt this play for a stage performance in future. This demonstrates the crux of Djerassi's method: writing a play on the page that can later be adopted for a performance on stage.

Djerassi employs dual timelines to aid the play's plot as he had done in the case of *Oxygen*. In *Phallacy*, the history of the sculpture appears in the timeline of 1576. The 12th scene features another heated exchange between Leitner-Opferman and Stolfuss, where the former accepts the lapse in her research and attributes it to procrastination and affinity towards one theory. Finger travels to Spain to collect more details about the alternative hypothesis regarding the sculpture. If this hypothesis is proved correct, Stolfuss and Ellenbogen's thermoluminescence and trace analysis work would be rendered trivial. Stolfuss asks Ellenbogen to make a fake cast of accurate dimensions and chemical composition. They make counterfeit parts of the sculpture and develop a perfect backstory. Stolfuss explains that his intention in making a fake bust is to lure Leitner-Opferman to present an offer to buy the parts of the fake figure (91). He intends to prove that she cannot identify a fake statue using her qualitative methods. Ellenbogen disguises himself as Geraldo Lopez, a dinosaurologist, and presents the fake parts of the sculpture, which he supposedly found during an archaeological excavation. Leitner-Opferman fails to discern that the statue parts are counterfeit and sets out to arrange for funding to commission the statue.

Djerassi directs the reader's attention towards the ethical conduct of both Leitner-Opferman and Stolfuss. Leitner-Opferman never pursues the alternative hypothesis and favours the Greek origin theory. She explains that she procrastinated working on the alternative hypothesis and was biased towards the Greek origin theory. Stolfuss forges an artefact to prove Leitner-Opferman incorrect in an academic dispute, and he instructs his subordinate Ellenbogen to make a fake cast. Keeping the science simple yet accurate, Djerassi portrays the ethical issues both lead characters face as they are torn apart by academic rift and personal ego. In the 24th scene, Stolfuss confesses the truth about

the forged parts and points out the incorrect angle of the phallus in the fake sculpture, which Leitner-Opferman has failed to discern. Leitner-Opferman realizes her mistake, but no harm is done as Finger's findings in Spain validate the alternative hypothesis. Finger reveals the truth about the sculpture and explains the situation by stating that the statue that they have is a Roman copy of the Greek original statue that is lost:

Finger: Lost.

Stolfuss: That's all?

Finger: It's enough to indicate what happened to that original 1502 bronze. And since we no longer claim that ours is the original one, what's left for you to publish?

Stolfuss: Weren't we the first to show that it is only a 16th-century cast?

Finger: Granted. And we'll happily and fulsomely acknowledge that fact in a footnote to our paper describing how the Austrian original of 1502 ended up in Spain in a roundabout way. (106)

The sculpture is not a Greek original but a Roman copy with considerable historical and aesthetic value. Leitner-Opferman explains as follows:

Leitner-Opferman: The visually aesthetic value is not altered.

Stolfuss: Financial then. I'd say the Greek original would be the most valuable, the Roman copies less so, and a mechanical bronze cast – like yours – the least.

Leitner-Opferman: Let the art dealers worry about that. After all, we didn't buy ours. A Habsburg Emperor donated that cast to our museum; it isn't for sale now. But to a museum, publicity means capital. And the public attention to our bronze will only increase with its more complicated provenance. In other words, more people will come to see it.

Stolfuss: And thus making your cast more valuable [laughs]. I think I hear you busily making a silk purse from a sow's ear.

Leitner-Opferman: [Laughs] Our 16th-century cast tells us precisely what the Roman original looked like. As such, the public should be satisfied. (109)

Finger's research adds significant depth to the historical significance of the statue, and Ellenbogen's findings from trace analysis and luminescence corroborate her findings. At the end of the play, both Stolfuss and Leitner-Opferman agree to set aside their differences and jointly publish their results. Djerassi elaborates on the history of the sculpture as well as the details of bronze casting to the readers. Such a description will allow for good theatrical production, thus justifying his method of developing a science play from page to stage. The play provides the readers with an example of healthy academic collaboration across the cultures of humanities and sciences.

## Conclusion

Djerassi's depiction of the scientists in the plays helps reflect on 'the tribal nature of a scientist's behaviour to which insufficient attention is paid by members of that tribe' (xix). In *Phallacy*, the conflict between the two cultures is also between two methodologies: art history and chemical-material analysis. The plays juxtapose the conflict of methodologies with the issue of ethics in research. From these two plays, we see that Djerassi's method is practical and will aid scientists, students and playwrights. He wrote these plays, staying true to the method of 'plays on the page rather than plays on stage' and his vision of science-in-theatre. *Phallacy* has been performed in London, New York, Vienna, Porto, Kentucky and San Francisco, while *Insufficiency* has been performed in Prague, London, Cologne, San Francisco and Berlin. The publication of plays and their subsequent performances justify Djerassi's vision and method. His chemistry plays act as a guiding light for playwrights dealing with other sciences and academia-oriented works. In the field of literature and science, Djerassi's contribution will pave the way for many scientists and artists to initiate a conversation between the two cultures. He will always remain an important stepping stone, bridging the chasm between the two cultures.

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