

Picasso encounters crystallography: An unique excursion into the intersection between the Sciences and the Arts.



From left: Cele Abad-Zapatero as Pablo Picasso, Karl Volz as J.D. Bernal, Andrew Mesecar as W.L. Bragg, George Chlipala as J.B.J. Fourier, and Aimée Egglar as Rosalind Franklin. Photos are from the first reading of the play, courtesy of Aimée Egglar, Yahira Baéz and Kelly Gay.

In our daily routine as committed scientists devoted to our professions, we tend to forget how much our imagination, dedication and drive resemble the efforts of artists in their daily struggle. In addition, we tend to forget that while our specialized toil affects people's lives, they do not understand what we do. To address these key issues, the APS is planning to present a unique event to inaugurate its 2008 Annual Users Meeting May 4th-8th. The framework is provided by a new play entitled *Picasso Meets Crystallography* recently read at University of Illinois at Chicago (UIC) that centers on the historical meeting between Picasso and J.D. Bernal in 1950.

Coincidentally, on January 14, 2008 the mural ('Sage') drawn by Pablo Picasso in London in 1950 at the flat of J. D. Bernal, the most charismatic crystallographer of his generation, was unveiled at the headquarters of the Wellcome Trust in London. This unique artistic record of the meeting of these two giants was left behind by Picasso at Bernal's flat at Birbeck College on November, 12, 1950. The mural was dismantled when the building at 21 Torrington Square was demolished and was housed temporarily at the Institute of Contemporary Art in London, until the renovations of Birbeck were completed in 1998.

Picasso and J. D. Bernal together? What brought these two iconic figures of the Arts and the Sciences together? What did they talk about? Crystallography and Art? Politics? The tribulations and romantic problems in their lives? Answers to these questions and others form the texture of the play *Picasso Meets Crystallography*. Through this dramatic structure the play attempts to provide a forum for the dialog and discussion of the connections and differences between the sciences and the arts, the origins of molecular biology and related themes. Besides Picasso and Bernal, the characters of the play are Rosalind Franklin, J.B.J. Fourier and W.L. Bragg.

This play is certainly not the first one dealing with scientific heroes or science-related themes. I would like to bring to the attention of younger crystallographers (or scientists at large) just a few landmarks of the genera of plays having to do directly or indirectly with science. In my student days in Spain, I was mesmerized by *Life of Galileo* (1939, 1947), the masterpiece of the German playwright Bertolt Brecht centered on the life and conflicts of Galileo. The social responsibility of scientists

in society resulting from the development of atomic energy was explored by the Swiss playwright Friedrich Dürrenmatt in *The Physicists* (1962). More recently the intriguing brief play entitled *Oxygen* (2000) by Carl Djerassi and Roald Hoffmann addresses the issue of who really discovered oxygen, Lavoisier, Sheele or Priestley. Finally, I would draw attention to the subtle and enormously successful play *Copenhagen* (1998, 2000) by Michael Frayn, which attempts to recreate what really happened in the historical meeting between Niels Bohr and Werner Heissember during WW II. A recent book entitled *Science on Stage* by Kirsten Shepherd-Barr, Senior Lecturer at the University of Birmingham, UK (Princeton University Press, 2006), discusses the trends in this unique area of science-writing and reviews and comments on more than one hundred plays presenting scientific themes on stage.

Although the script is still being developed, the first complete reading of *Picasso Meets Crystallography* took place on December, 14, 2007 at the Center for Pharmaceutical Biotechnology of the UIC. The cast of characters was as follows: J. D. Bernal: **Karl Volz**; W. L. Bragg: **Andrew Mesecar**; J.B. J. Fourier: **George Chlipala**; R. Franklin: **Aimée Egglar**; Pablo R. Picasso: Cele Abad-Zapatero. Cele was author and director, and stage directions were by **Valerie Grum-Tokars**. Supporting staff were: **Yahira Baéz** and **Kelly Gay** for images and video; **Jacqueline LaMarre** for music and audio; **Yang Tian** (with the assistance of Valerie Grum-Tokars) for stage setup; **E. Woods** and **Y. Yong** for signs and leaflets. Additional photos of the reading are at <http://picasaweb.google.com/aimee.egglar/TheReading>.

We invite the crystallographic community to bring this historical meeting alive by supporting the full stage production at the premiere of this play which will take place during the opening of the APS 2008 Annual User's Week Meeting on May 4. In addition, a documentary will be filmed that will illustrate the relation between the sciences and the arts and help to communicate to the lay public what we do as scientists and as human beings. Individual, organizational and corporate contributions are invited and will be welcomed. The project is supported in part by the IUCr. Further information about this unique project can be found at: <http://www.aps.anl.gov/Users/Meeting/2008/Picasso/index.php> or by e-mail to caz@uic.edu, or strasser@aps.anl.gov.

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