

ACE of Maine Happenings

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ACE OF Maine Hampden ■ Bangor ■ Portland

Our Second Year

TOM FIGURA, Sr. Estimator, Cianbro Corporation, Chair, ACE Mentoring Program of Maine, Inc.

GARY SCOTT FRANKEL, AIA, Sr. Architect, WBRC Architects • Engineers, Team Leader, Hampden Academy

ACE Mentoring Program of Bangor, Maine has reached the end its second year, we've held the second annual student presentations and have awarded \$4,500.00 in scholarships, \$2,500.00 more than in our inaugural year!

As such, we look back and reflect on how far we've come in such a short time. In less than two school years we've successfully added two new schools to the roster, both Bangor High School and Deering High School in Portland, thanks to the many professional volunteers, school principals and student's that make the whole program work. The ACE program is designed to allow students to participate each of their four high school years to set them on a path toward an architectural, engineering or construction related degree and career. At Hampden Academy, we already have repeat students who are benefitting from their contin-

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Tom Figura, Chairman and Hampden Team Mentor presents Clayton Forrest with a scholarship award.

The Second Annual Award Night

STEVE PEDERSEN, AIA, LEED AP, WBRC Architects • Engineers, Mentor, Hampden Academy

The ACE Mentoring program held its' 2009-2010 final presentations and awards ceremony on the evening of June 10 at the Wellman Commons in the new Bangor Masonic Center. There was a great turnout and a terrific group of projects presented by the Hampden Academy and Bangor High School students.

It was really gratifying to see how far the students had come since the start of this school years' program and how professional their presentations looked. It is such a great opportunity for them to get a taste of how our design profession works in the real world and to be able to assist them in getting there.



Bangor High School student Blake Lufkin presents his design solution to the judges and audience

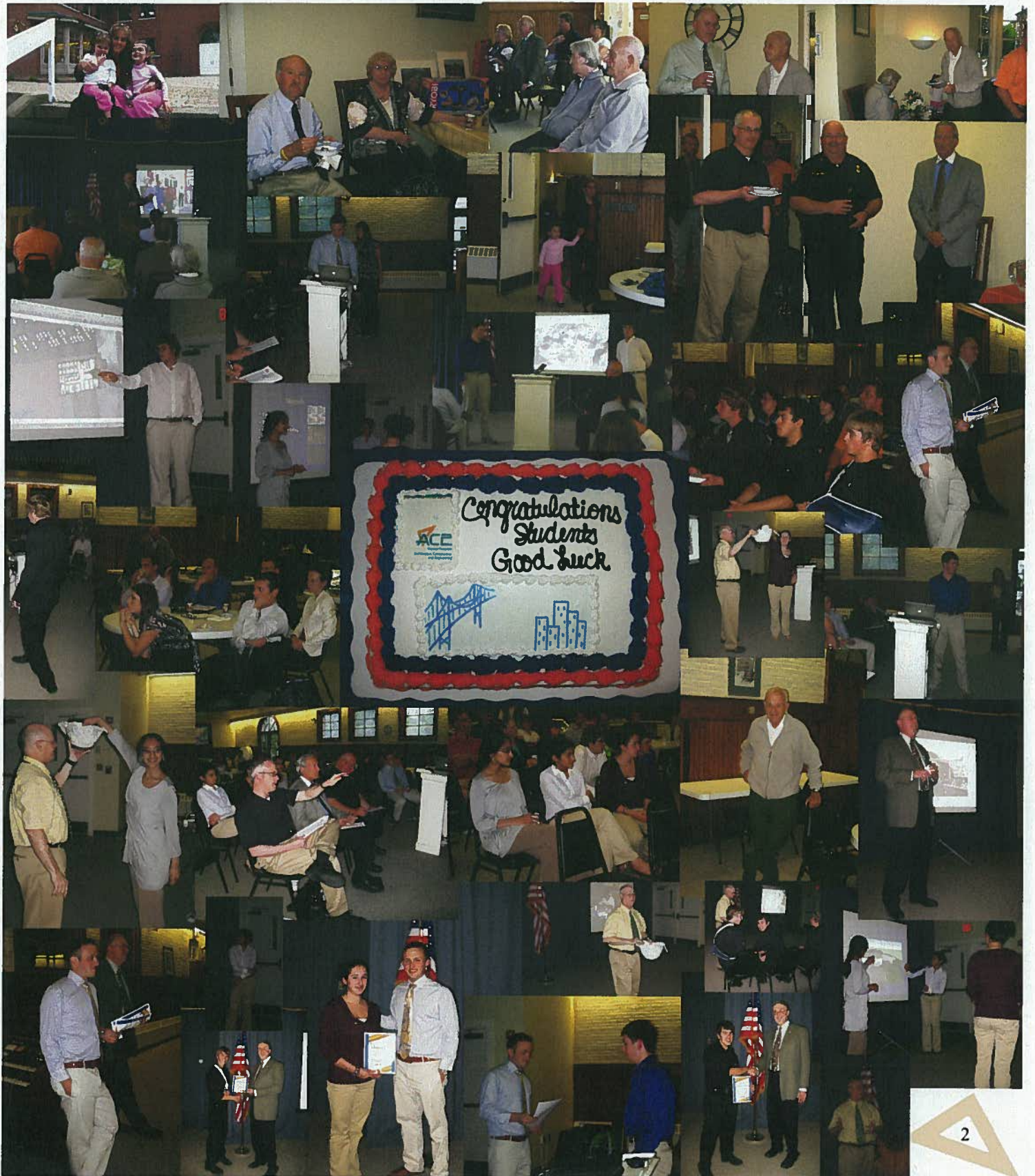


Front to back, Judges Matt Carter, Rick Bronson and Perry Antone evaluate and question the students presentations

The reviewing judges, including Matt Carter, Architect, WBRC Architects • Engineers, Rick Bronson, Former City of Brewer Fire Chief and Perry Antone, Brewer Police Chief are all experienced and have a direct familiarity with the police/fire

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2009-2010 FINAL PRESENTATIONS



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facility project that the students worked on this year. During the presentations they asked some tough questions, not unlike those we face as designers all the time, and it was great to see how the students responded. Just being able to think on your feet and adapt as the situation demands is half the battle! Each presenter had something important to contribute and was well-spoken and knowledgeable.

Next year we the ACE students will work on a new project with new challenges, and I for one look forward to being involved again. We hope to see many of this year's students returning again, along with many new recruits. The experience is invaluable!

The key to a successful presentation is preparation.



The judges gave a post-presentation wrap up including their impression and thoughts on the presentations.

determined milestones in order to keep up with the schedule. In this way, time is allowed for students to learn how to present their ideas effectively with tried-and-tested big-picture techniques including just enough detail to create interest from their "clients." The "clients" in this case, the judges, truly like to see students' presentations of the facilities in which they con-



Bangor High students Laura Pasquine, Hina Hashmi and Leila Mousavi begin their team presentation

As the year progresses, the students are encouraged to pace themselves and develop their programs and design solutions to meet pre-



Above, ACE Mentor and Chair awards the Coplin Fickett from Hampden Academy the first place award.

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ued participation in the second year of the program. The mix of students varies from freshman to seniors giving the program much diversity and allows the students to learn not only from the professionals acting as mentors but also those students that have been through the program previously and can offer insight to the new participants.



Bangor and Hampden students listen to UTC Technology Instructor John Milligan discuss construction operations during the first of two UTC site visits.

Our success is developed and maintained by the active participation of the schools, the students, their respective administrations, the support of our sponsors and the participation of individuals in the original team of volunteers from WBRC Architects • Engineers and the Cianbro Corporation and in our second year, the addition of a several new volunteer mentors consisting of individuals from both Consigli Construction and Criterium-Mooney Engineers who have been instrumental in adding the Bangor High



UTC Technology Instructor John Milligan discuss the correct techniques associated with operating a laser level and transit during an actual project in which ACE students constructed a pathway..

School and Deering High School Team to the mix. Through the ACE Mentoring Program, students foster their interest in the Architectural, Construction and Engineering industries, thus the acronym ACE. But, it extends far beyond just these three professional disciplines to virtually any engineering or construction related career. Through the program, students are introduced to many professional practitioners including engineers, construction professionals and architects that volunteer their time, showing the participating student's what each of us do on a daily basis and how that work integrates with both community and the end users.

The volunteers can also relate personal project experi-

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The Chair's Corner

We have finished our second successful year as The Ace Mentor Program of Maine. This year, we more that doubled the number of student's completing the program and competing for scholarships at the annual Scholarship Awards ceremony. Ten student's combined forces throughout the year in the Bangor High School, Deering High School and Hampden Academy Ace Mentor Program classes.

We saw some really interesting designs and ideas come forward from the student's this year and since most of the student's are still undergraduates we hope to see them attending next years course offerings and competing again for scholarships toward their Architecture, Construction Management or Engineering (ACE) degrees in the future.

Following scoring by their mentors for their yearly performance and participating judges at the awards ceremony, student's are able to earn scholarships for their upcoming scholastic endeavors in the ACE fields. This year we awarded nearly \$4,000 in scholarships following design presentations from the participating student's. Thanks to our donating sponsors we were able to provide the generous gifts to the highest scoring student's. Congratulations to all those student's that received scholarships and we do hope you will continue with the program in the coming years.

As we move forward to next year, we as mentors look forward to participating in the program and making improvements to the curriculum and field trips so this is exciting for the student's as well as beneficial. It is important to keep the student population active in our program and the interest in pursuing the ACE careers to insure our countries population of design and construction professionals. With the continued participation of the student's, volunteer mentors and donating sponsors we will be able to not only continue the program but make it larger and better within the state of Maine.

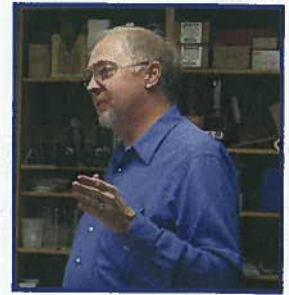
It has been my pleasure to serve as Chairman for the program this year and I look forward to serving next year as well. I thank all the student's for their time and for projects well done. I thank all the mentors for their participation, since their time provides the student's a first hand look at the industry they wish to pursue. Thank you to the donating companies that make the program possible with their generous donations through which we are able to fund the operating expenses and student scholarships.

Let's get ready for next year!

For more information about ACE Mentoring of Maine and each of its' affiliates or to contact us, please go to www.acementor.org and click on Bangor, Hampden or Portland.



Tom Figura, Chairman
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Rob Beal, Vice Chairman and Bangor Team Mentor presents the first place award to Bangor Student Blake Lufkin at the conclusion of the presentations.

duct their professional lives on a daily basis.

Once again, it was really impressive to see how much skill and knowledge each student displayed. Unfortunately, only three scholarships per school could be awarded, but credit and congratulations go out to everyone who participated.

Every project was unique and we as mentors are extremely proud of each and every student for the hard

work they put in. Congratulations goes to each and every students for their sticking with the program and for all their effort during the year.

So, students, we look forward to seeing you next year! Get your friends involved, too. You will greatly benefit by learning from the ACE program, whether you pursue a design career or in any field you chose.



The audience looks on as Hampden Academy Student Gabe Winch presents his Public Safety Department design.

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ence to the education process making the education session exciting and interesting. Additionally, students learn how the team approach to problem solving works in the real world and how the architectural, construction and engineering communities integrate and collaborate on a daily basis to make it all work. In addition to the student's exposure to the ACE mentors and industry practitioners, they are also introduced to many local community groups, businesses and higher education facilities where through field trips and educational tours the students gain a better understanding of the opportunities available. As a means by which to give the students a better understanding of the educational experience, we also try and get the students to an actual building and or project that relates to their projects.

Many folks have seen and or read how our infrastructure has been neglected for too long. The electric grid, our roadways and bridges and the nations water supply system are just three examples of the nation's critical infrastructure which have not been properly maintained except as necessary to keep them running. In addition, greater than 50% of the buildings expected to be in existence by the year 2050 have not yet been built. As such, we anticipate a shortage of engineers and construction professionals to support the countries demand in the coming decades. At ACE we hope to provide interest to the student's in these industries and help guide them to a career choice with almost limitless opportunities. As professionals in the industry, we have had many opportunities provided to us through our careers which helped advance our knowledge and position in the community as well as our firms.

The ACE program is all about giving a little of that knowledge back to the community in the way of volunteering your time to help the future generations that will be responsible in building our communities and infrastructure. We as professionals need to maintain the flow of qualified help moving toward our industries and we can have a positive influence on the outcome. It is really satisfying when you see the students present their projects at the end of the year to their families and to the professionals and community leaders that attend the ceremony. There is a great sense of accomplishment when a student incorporates items and design into their project that the team has been talking about through the year and even a greater sense of purpose when the parents of those students thank you for your involvement and help in leading their children through the a sometimes difficult decision making process. ACE Mentoring of Maine IS having a positive and lasting effect on students lives and futures.

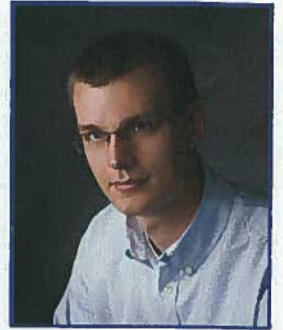
Alternative energy and many new technologies emerging in the market will offer even greater opportunities for the future generations. With the new LEED requirements adopted by our government and most of

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Meet the Mentor

SHANE DUNN, Intern Architect, WBRC Architects •
Engineers, ACE Mentor, Hampden Academy

My name is Shane Dunn and I grew up in Augusta, Maine. The path that lead me to where I am today all begun in high school, the same stage in academia in which the ACE students participate. The classes I took helped me realize my interest in architecture by revealing my academic strengths. The combination of math classes, utilizing logic and reasoning, along with art classes, demanding imagination and innovation, both reflect core aspects in architectural design.



After high school, I attended college at Syracuse University School of Architecture. This was a five year program with a heavy focus on design theory. It was a real eye opening experience into the whole architectural process and how the built environment comes to be. To understand the depth of architectural design, we learned how conceptual ideas can be translated into architecture through innovative use of building materials, massing, orientation, scale, and repetition, just to name a few. We were also taught to recognize the important balance between ascetics and functionality.



Construction knowledge was taught at a fundamental level in order to learn the core principles of building elements and how they interact with one another.

This created a platform on which to explore our ideas and designs on a more realistic and meaningful level.

On top of such classes, I was able to get a summer job working in residential construction. I worked on everything from the foundation to the finishes. This experience was priceless and I gained great appreciation for the work that takes place after the drawings leave the

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drafting table.

My fourth year in college, I was able to experience studying abroad in Florence, Italy. I traveled all over the country where architecture has a rich and extensive



Pictured above, Shane instructs and discusses the use of Google Sketch-Up for use as a presentation technique with the Hampden Academy students.

history. I toured many famous buildings designed by architects representing multiple time periods and building styles. It was great source of inspiration and made me appreciate the architectural

knowledge and accomplishments of the past.

Throughout my schooling, I came to realize the level of dedication and perseverance needed to stick with the intense and challenging program. During our long studio hours we were continually encouraged to rethink design solutions, look at them from other points of view, and develop multiple iterations. We were taught to take criticism, and transform it into useful information to improve our projects. Encouragement from peers and family also played an important role in successfully completing architecture school.

I graduated in 2006 with a bachelor's degree in architecture. I was then hired by WBRC Architects and Engineers and have been there about four years now. I work mainly in the Education studio where we design a wide range of school buildings. The experience I have gained here is something not taught in school, some of which being, detailing, code analysis, client relationships, and interdisciplinary coordination. This past year, I got in-

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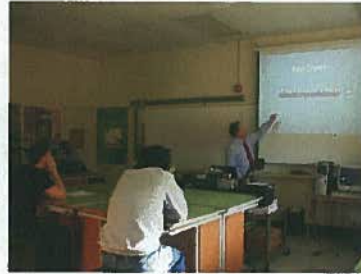
our new clients more positions will need to be filled to develop, execute and document these activities. Many of those job opportunities will require technical or engineering backgrounds, thus our interest as professionals to educate our youth at any early age, guide (Mentor) them through design and construction process, show them examples of our work and develop the next generation of professionals.

At the conclusion of ACE's inaugural year, the program awarded \$2000.00 in scholarships to four students. In this, our second year of mentoring, our goal is to award a total of \$6,000.00 to award winners from each of the three teams. And in future years to continue our mission to foster high school students' interest in con-

Portland's First Year

TYLER JOHNSON, Intern Architect, WBRC Architects • Engineers, ACE Mentor, Deering High School

The Portland team has had a great first year! We attended the freshman activities fair at Deering High School to get introduced to the volunteering, extra-curricular, sports, and club activities after school. There we got ACE exposed to the students and to their families. From there we had a couple of lunch meetings where we talked to prospective ACE mentees and explained what the program was and what our goals were. We talked about how the most important thing about our organization is not only to have fun but to get a better understanding of the construction, engineer-



Deering High mentor Jack Carr, P.E. lectures students on the ins and outs of structural engineering during one of the inaugural ACE sessions.

ing, and architecture fields, and how our build environments are created.

We modeled our premier year after our first Maine group in Hampden by developing a series of lectures and activities. We also experienced a site visit to the Ocean Avenue School. We had lectures on estimating and creating



Deering High students learned how to analyze the site to decide the best location in which to locate their building.



Learning the techniques of estimating, students produced drawings which help them understand the square footage of spaces.

budgets as well as what structural engineering is all about. We exposed students to some of the everyday aspects of construction management and the process from getting an idea of a building, to putting it to paper, and finally, to getting the building constructed.

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struction related careers. Maintaining our success rate will necessitate the participation of new additional professional volunteers, the support of an increasing number of sponsors, the participation of schools and of course most importantly, new students to make it all work. We look forward to having new professional volunteers come forward and volunteer their time to the effort.

If you are interested in finding out more about ACE, check out www.acementor.org. Or if you are interested in participating in an ACE Mentoring program as a sponsor, mentor or have thoughts of bringing the ACE program to your school, please contact Tom Figura, Chairman, ACE Mentoring Program of Maine at the Cianbro Corporation (207) 679-2284 or Gary Frankel, Hampden Academy Team Leader at WBRC Architects • Engineers (207) 947-4511. Or email us at tfigura@cianbro.com or gary.frankel@wbrcae.com respectively. We look forward to hearing from you.



Bangor Team mentor Rob Beal loads his spaghetti noodle structure to the point of failure.

Where can I get info about the ACE Mentoring Program?

Go to our website, the addresses are:

Hampden: www.acementor.org\814
Bangor: www.acementor.org\953
Portland: www.acementor.org\902

Or, contact any of the team members via email at:

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Our first year is coming to a close and now is a great opportunity to thank the faculty and staff at Deering High School for letting us use their facility. We would also like to thank all of our sponsors who were able to donate to ACE to help us achieve our scholarship goals. Thank you to the ACE mentoring team for a great year.



Thanks to our supporters for their



This program relies totally upon the generous support of our sponsors. By providing financial support and other resources, our sponsors enable us to offer this program at no cost to the school or to the students who participate. In this way, the best, most talented, interested and motivated students from all levels of society can participate in the program. We hope you will take a moment to contact our sponsors and join us in extending our sincerest thanks to each for their very generous support of the ACE Program in the 2009-2010 School Year. They can be reached through their link on our website www.acementor.org/814.

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Also, special thanks to **THE HOME DEPOT**, Bangor,
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