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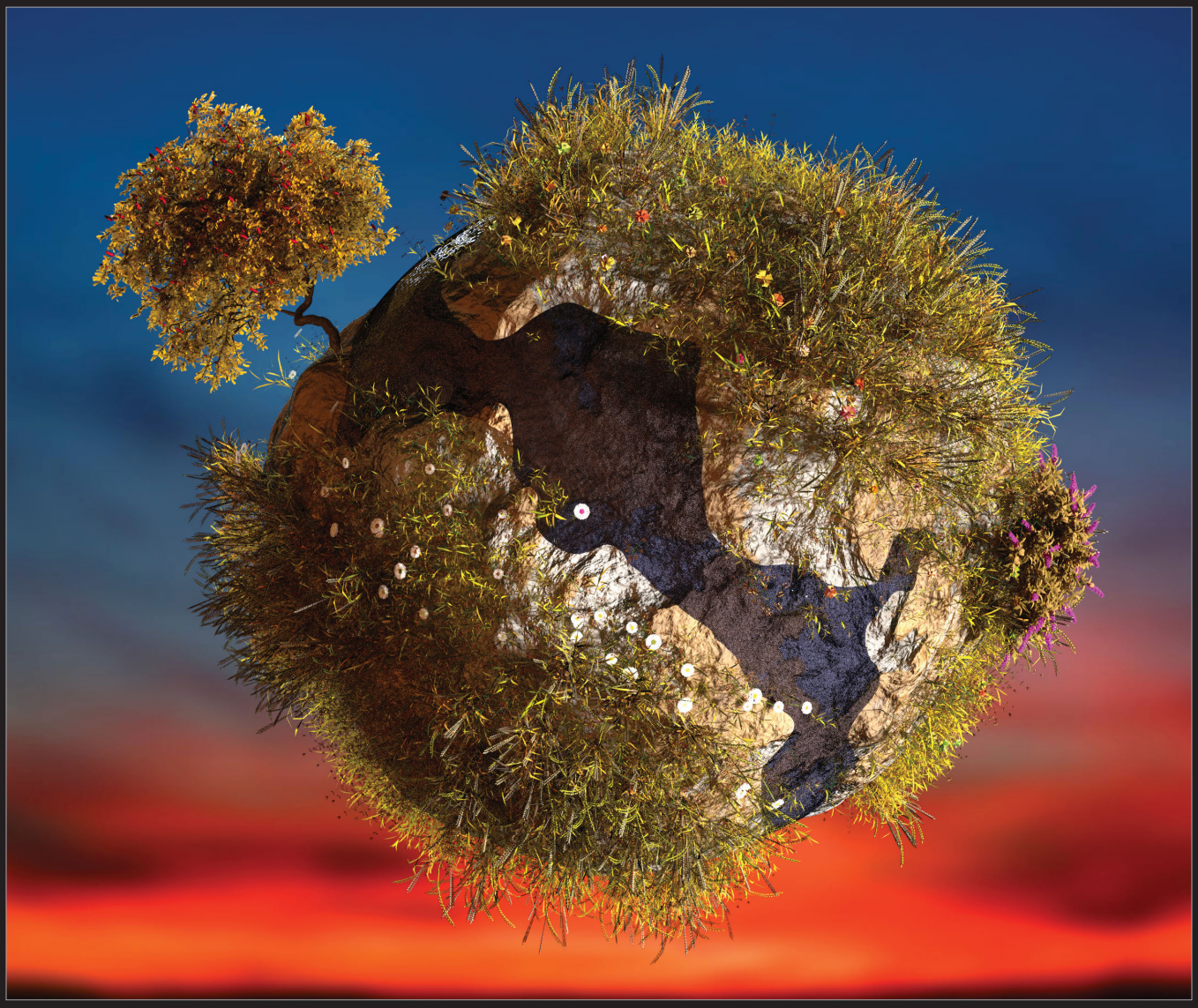

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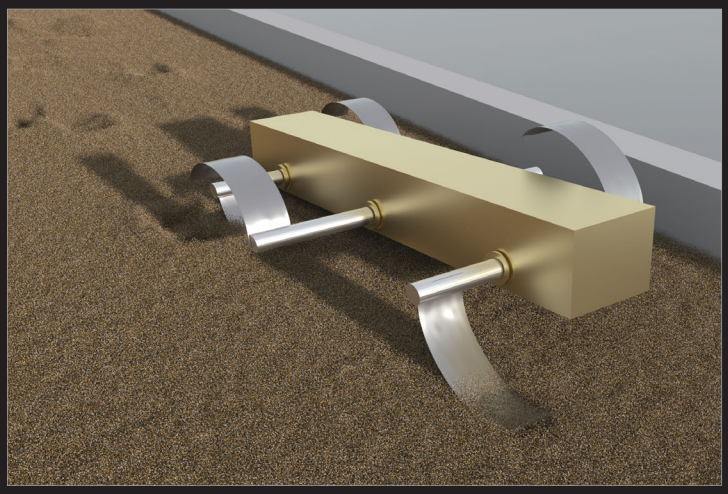

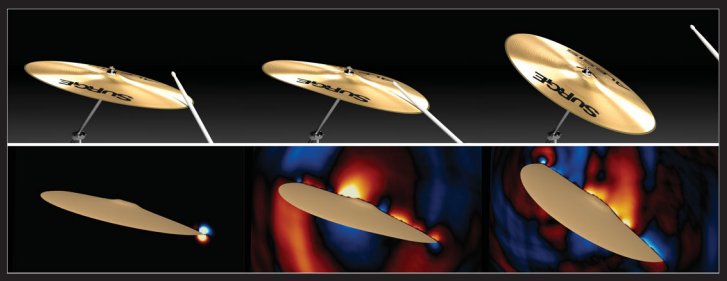

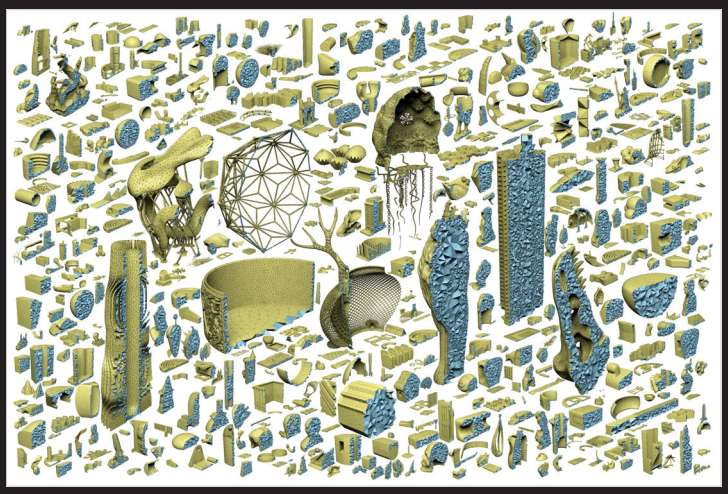

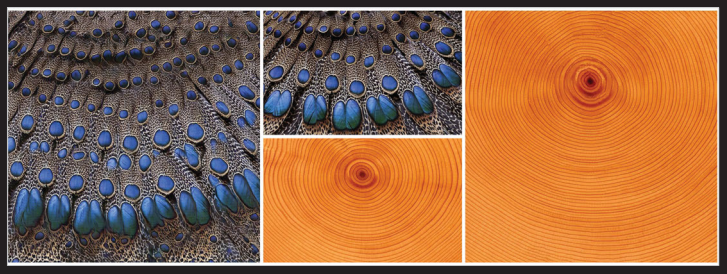

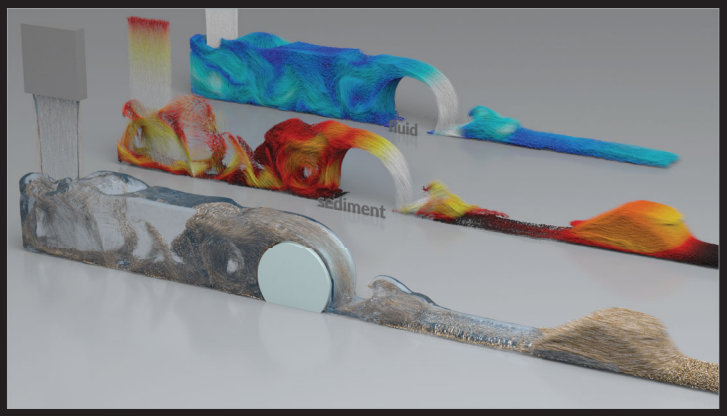

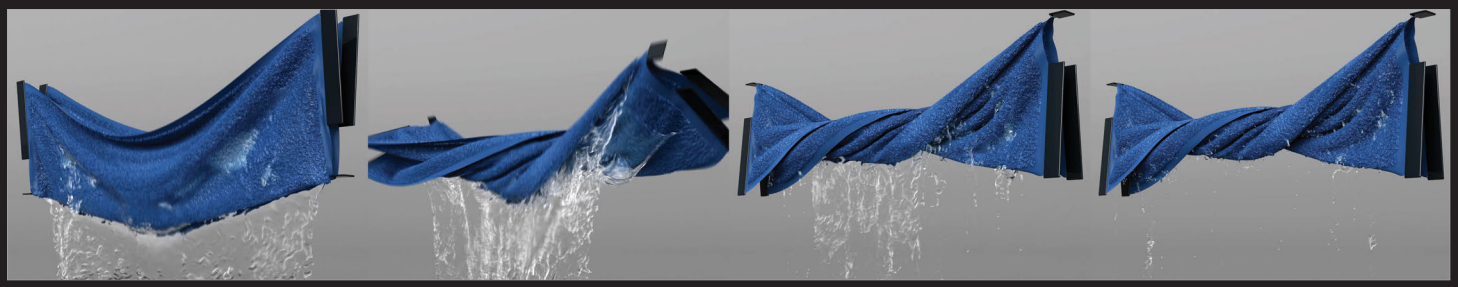

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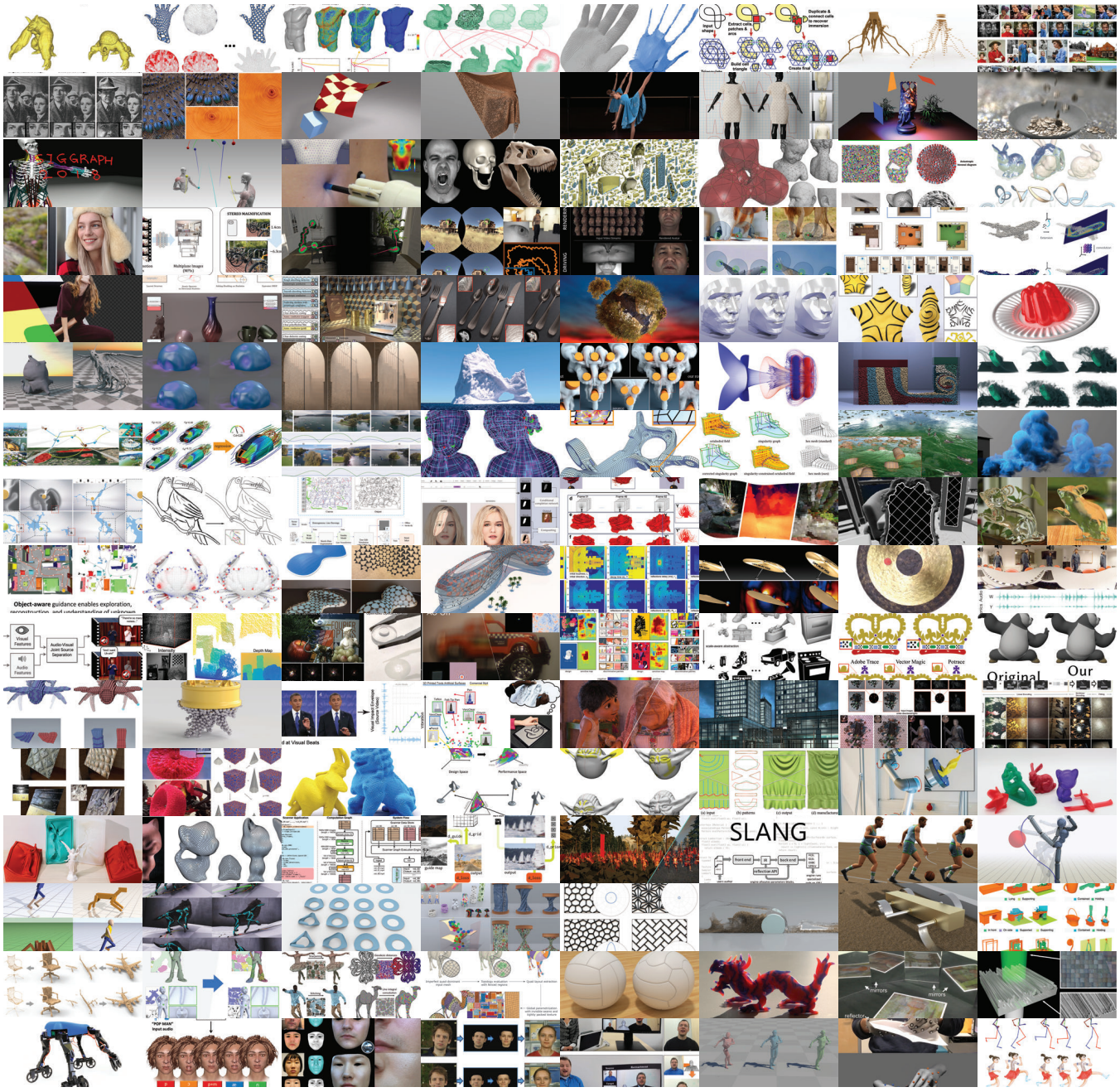

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ACM is transitioning to an article-based, "online first" content publishing system and all ACM journals are undergoing a similar transition.

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Preface

For over 40 years, the ACM SIGGRAPH Technical Papers Program has been the premier forum for disseminating scientific research in computer graphics and interactive techniques. As the chair of this year's program, I knew of only one way to meet the high expectations set forth by our community: I needed to enroll the best people I knew to do the job. Much to my delight, they not only accepted to lend their time and expertise for SIGGRAPH, but they also gave their mightiest to maintain the highest standards of reviewing and professionalism. The result is this special issue of ACM Transactions on Graphics, 128 papers strong.

These scientific papers were selected from a pool of 464 submissions (from 38 countries) with the utmost care and with an attention to fairness bordering on obsession. The 60 experts comprising the Papers Committee (PC), aided by over 1270 outside reviewers, spent weeks debating the pros and cons of every submission. Their efforts culminated in a three-day face-to-face meeting where the fate of each paper was decided by the PC as a whole. Strict rules protecting anonymity and preventing conflicts of interests were adhered to throughout the process. All told, this Herculean effort generated feedback to submitters in the form of reviews and comments totaling over 1.3 million words.

The outcome is both humbling and inspiring: this year's accepted papers continue to advance the field in its traditional areas (from modeling and rendering to animation), but also propel it in emerging or resurgent areas (such as fabrication, machine learning, and virtual reality). Some have said that graphics is dead; these papers beg to differ. As long as our community can generate such high-quality scientific works and keep growing the realm of computer graphics and interactive techniques, the SIGGRAPH spirit will live on.

I am most indebted for the dedication and hard work of everybody involved in the inner workings of this program, many of them volunteers. I wish to recognize those who deserve a special mention:

- All the authors of submissions for the boundless passion they obviously have;
- All the members of the Technical Papers Committee for their outstanding work throughout the review process, sometimes under especially difficult personal constraints;
- The thousands of other reviewers for their careful consideration of the submissions;
- My advisory board, Kavita Bala, Marie-Paule Cani, Adam Finkelstein, Takeo Igarashi, Doug James, Sylvain Paris, Peter-Pike Sloan, Olga Sorkine-Hornung for their guidance throughout the past year;
- My sort committee, Kavita Bala, Aaron Hertzmann, Doug James, Paul Kry, Szymon Rusinkiewicz, Peter-Pike Sloan, Olga Sorkine-Hornung, and Yiying Tong, for their careful assignments of submitted papers to the papers committee members;
- Caltech, my home institution, deserves thanks as well for hosting the sort meeting with the expert help of Sheila Shull and Sydney Garstang;
- Takeo Igarashi (chair of Technical Papers program at ACM SIGGRAPH Asia '18) for taking on a tremendous amount of reviewing assignments right before and during the PC meeting;
- SmithBucklin Team for their tireless assistance and support in managing the entire review process;
- Adam Finkelstein for providing and supporting his PC meeting app, which greatly facilitated the papers committee meeting;
- I am formidably grateful to Mark Montague of Linklings for his help and support in using the new system: he made the time to meet with me every single week for a whole year before the conference to make sure the transition to the new system would be smooth—and he delivered;
- Adam Finkelstein (again!) and Tom Buehler for creating an excellent video trailer;
- Kavita Bala (yet again!), Editor in Chief of TOG, for overseeing the referral-to-TOG process fairly and thoroughly;
- Stephen Spencer for expertly putting together these proceedings;
- Munkhtsetseg Nandigjav for organizing the Technical Papers Fast Forward Session;
- and Roy C. Anthony who managed to run a fun, yet tight ship in order to bring the whole ACM SIGGRAPH 2018 conference to life.

I hope you will enjoy reading the papers in these proceedings. And if they inspire you, make sure to submit your own work to ACM SIGGRAPH 2019: the next chair, Olga Sorkine-Hornung, will be expecting your best contributions!

Yours in discovery,
Mathieu Desbrun, Caltech.