

THE SAGA OF SPRINGER-VERLAG AND VOLUME II
OF MUMFORD'S SELECTA

A TALE OF DRAMA, DECEIT, DETERMINATION AND
DERRING-DO

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It all began one stormy morning in June 2007, in the windy streets of Newport, Rhode Island. A gale was blowing into the harbor, buffeting the poor boats tied down to their moorings. The old yachts creaked and groaned as they swayed and, trying to escape their present misery, they wistfully dreamed of happier times long ago, of days that had seen them crowned with glory as champions of the America's Cup, days when, still full of youth and vigor, they could brave the rough ocean waves, rather than cower apprehensively in the relative safety of the harbor. The trees bent in the powerful gusts of wind, a dead branch appearing and disappearing from the heavy mist, like a severed arm issuing a stern warning to the unwary. An old man, who seemed to have missed the "ominous" memo, obliviously strolled along the wharf with his dog, whistling to himself the tune of *She Loves You (Yeah)* by the Beatles.

Nevertheless it was a morning of great foreboding. For three men were on a mission, with nothing but a wild dream and the guts to carry it out. Their names? Amnon, Ching-Li and Takahiro. Their favorite colors? Brown, green and blue respectively. Their mission? Nothing less than the unthinkable—to publish Volume II of David Mumford's selected papers, with the ancient and famous publishing company Springer itself. (They found the Holy Grail on their day off.)

"Those proud fools!" you gasp, with a mixture of astonishment and sympathy. "What became of them?" Read on, for this is the story of their ill-fated and ill-conceived journey. May the reader learn from their folly.

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More prosaically: in June 2007 we (the authors of this note) signed a contract with Springer Science+Business Media, LLC, to publish Volume II of Mumford's selected papers. In the beginning all went smoothly enough; the Springer editor in charge of the volume was Mark Spencer, who was helpful and encouraging. The volume was to contain the following:

1. About 590 pages of reproductions of old Mumford articles.
2. About 35 pages of unpublished Mumford manuscripts.
3. About 125 pages of mathematical correspondence between Grothendieck and Mumford.
4. 8 pages of errata or comments on old papers.

Of the 125 pages in (3), twelve were to be reproductions of original, hand-written and typewritten letters; we were to scan those and send Springer the electronic files. Mark requested that we use the tiff format, and scan at a resolution of at least 1200 dpi. In the case of the 590 pages of (1), we were to provide offprints whenever possible; Mark assured us that these will be scanned by Springer production at high resolution, at least 2400 dpi, and at high quality.

After we had gone through the preliminary phase, the first order of business was to convert the various unpublished manuscripts into \TeX files. A few of the trickier documents were done at the University of Pennsylvania, a handful by Ching-Li Chai, the rest by some grad students who had easy access to Ching-Li when they ran into difficulties. But this left a large pile of correspondence that someone had to turn into a publishable document.

Springer would normally do this, but we naturally wanted it done by people with a record of competence. We inquired, and found out who had done the Grothendieck-Serre correspondence; it was a team in India, based in Srirangapatna (about 15 kilometers from Mysore) and led by C. S. Yogananda. All the reports we received were positive, their work was good, so we asked Mark Spencer if Springer would be willing to pay the Srirangapatna guys to do the current project. Mark said he would have to find out, he would ask the production people. The answer that came back was that they were unwilling; they had an arrangement with another group in India who charged between \$1 and \$2 for every \TeX ed page;¹ the production people were not interested in going to someone who would charge substantially more. We were all surprised the price was so low.

To give you an idea what a great bargain this was, let us tell you what the Srirangapatna people charged. At the time they had a contract with the Société Mathématique de France (SMF) to type up \TeX files for them; the SMF was paying €2.5 per page. The contract was about to expire and the Srirangapatna people were negotiating a pay raise; in the next contract they would receive €4 per page. Keep in mind that we are not talking big bucks here; we had about 100 pages that needed typing. At Springer's bargain prices this would have come to something between \$100 and \$200; at the higher SMF prices it would have been at most €400, which converted (at the time) to about \$530. We decided to have the Srirangapatna people do the work and pay for it ourselves.

By September 2008 we had turned over to Springer all the material that was expected of us: a pile of permissions (from joint authors, recipients of letters and various copyright

¹Our memory is that the figure was much closer to \$1 than to \$2, but the written record we have from the period gives only the range of \$1 to \$2.

holders), a T_EX file, twelve pages of scanned correspondence, and an assortment of offprints of old Mumford articles. Mark Spencer informed us that all was ready; the book would now go into production.

In October 2008 we were surprised to learn that Mark Spencer had suddenly left Springer. For a while it looked like Ann Kostant was going to take over the project, but in early 2009 it was given to another editor, a woman we will call Rachel (not her real name). This is when things started to go wrong. It seems fair to say that Rachel's chief concern was to minimize the amount of actual work she would have to do, and she backed out of several understandings we had had with Mark Spencer. For example: there were several papers for which we didn't have offprints. Mark Spencer had said this was no problem, he would buy as many of the relevant old volumes as he could, either new or used, and, for the rest, he would trade with libraries for Springer books.² When Ann Kostant was in charge she said that she would borrow those books from Harvard or MIT and make good scans at Springer's office in Cambridge, MA. Rachel certainly wasn't willing to go borrowing books from any library. Ching-Li offered to borrow the books for her, on interlibrary loan if necessary, and send them to her to scan. She declined even this offer, with the improbable excuse that she didn't have access to a scanner at work.

After wriggling her way out of all these understandings she handed over the project to her assistant, a woman we will call Diana (not her real name); Diana bungled her way along, in her cheerfully disorganized way, often neglecting to do what she was supposed to. For example she had to get Mumford's written permission to publish the book, but forgot;³ in March 2009 the book went into production, without Mumford having signed anything. We didn't realize this omission until much later, by which time it was a tremendous relief; we had an easy way to cancel the contract.

At the beginning of August 2009 the typesetters of the book sent us a few early samples of their work. We found some major problems and reported them to Springer; the Springer production team reacted by instructing the typesetter not to send any further samples. In mid-September 2009 we finally received the (electronic) proofs, and we were appalled at what we saw.⁴ It was obvious that the guys at Springer had decided

²By the end of August 2008 he has bought two volumes in the *Proc. Symp. Pure Math.* series published by the Amer. Math. Soc.

³Mark Spencer tells us that we are being too harsh on Diana, it wasn't clear even to him whether Mumford's signature was absolutely necessary. Given that the material being reproduced included five hitherto unpublished manuscripts and much unpublished correspondence, chances are Mumford's signature really was required.

⁴The interested reader can find a fuller discussion of this in a little companion note called *An elaboration on some of the problems with a few files from Springer*, which can be downloaded at

to do this on the cheap; what we hadn't realized was just how shoddy a product they were capable of producing. We were at a loss; we had no idea who to turn to. We asked people for advice; we consulted fellow mathematicians and friends we have in the publishing business. We were told that the first person to turn to is the editor in charge; Ching-Li called up Rachel but she wasn't interested, she told him we should deal with the production team directly. Given how the production team had treated us in August, we weren't keen on going back to them. What were we to do?

Then several people advised us to turn to Catriona Byrne and Joachim Heinze; everything we heard about them was positive. They were editors from the old days when Springer still had quality standards, they were decent human beings, people liked them, even people working for competing publishers. So we emailed Byrne and Heinze, recounting our sad tale. Over the coming months we emailed Byrne and Heinze several times; except for two brief emails we never received a reply, but they must have worked behind the scenes to help us, each time there would be a spurt of activity, some progress on quality, and the secretive production people would give away a tiny bit of new information. In this way we gradually pieced together what had happened.

Mark Spencer had promised us that the old offprints of Mumford's articles would be scanned at high resolution (at least 2400 dpi) and high quality. The head of the production team, a woman we will call Rita (not her real name), reassured Ching-Li in March 2009 that "every effort" will be made to ensure high quality. When we finally saw the scans we discovered that they were at medium resolution (800 dpi), and the quality was average; about the level of the reproductions one can download for free from JSTOR or NUMDAM. No one could call the Springer scans high quality; one flaw they exhibited was horizontal wiggles, a zigzag pattern that suggested the scanner had probably been vibrating during its operation. If this was the quality Springer was going to scan at, then they could have spared everyone the expense and trouble by just downloading the free versions and starting from these.

After the scanning Springer was supposed to return to us the originals we had provided: there were many offprints of old Mumford articles, as well as one book Ching-Li had purchased.⁵ Towards the end of March 2009 various employees at Springer started reassuring us that the material would be sent forthwith. By July 2010 we had despaired of ever seeing them again, and were all set to designate a special day of the year to

<http://www.math.upenn.edu/~chai/story/story.html>

⁵You might recall that Rachel had refused to exert herself in any way in procuring the articles for which we had no hard copies; when Ching-Li happened to see one of the relevant volumes on Amazon he bought a copy and sent it to Springer.

commemorate Ching-Li's long-lost volume, missing in action, last seen in February 2009. Much to our surprise, the offprints and book finally reached Ching-Li in early August 2010.

After scanning the documents, Springer sent all its material to a typesetter in India, to assemble the parts into a coherent book. The typesetter chosen for the job was a company by the name of SPi, based in Chennai. We don't know how Springer managed to dig out anyone quite so unsuitable for the job; the level of incompetence of SPi was breathtaking. In one instance they took a perfectly good pdf file provided by Springer—Mumford had written the introduction to a book republished by Springer, and SPi was given the e-book version of this Springer introduction. Somehow SPi managed to make this pdf file worse and larger. The first version we saw was more than twice as big than the original e-chapter, and much worse. The second, improved version was better; but it was more than twelve times larger than the starting file, and still of visibly inferior quality. When we described this to a friend in the publishing business, his reaction was “time to change to another supplier”. We suggested this many times, but Springer adamantly refused to part company with SPi; our friend concluded that the only possible explanation was that Springer had some wonderful deal with SPi, and SPi was doing the work at a fraction of the market price. We haven't seen the balance sheets of either Springer or SPi, but from what we know about the deal Springer had for typing up T_EX documents, it certainly would be consistent.

Further corroborating evidence is in the fact that other mathematicians have had similar dreadful experiences with Springer. In this note we decided to relate only our own story, because each person should be allowed to tell her tale of woe herself.

By November 2009 the Mumford volume had come to something of a standstill, in Rachel's words the project “wasn't moving”, and we were becoming desperate to find some way out. We scrutinized the contract for some loophole that would allow us to cancel it, and meanwhile we wrote to Mumford to ask if we had his permission to walk out on Springer. His response came on 30 November 2009: he sent an email to Rachel, Byrne and Heinze, saying that he had looked through his files and couldn't find any contract he had signed with Springer, could they please send him a copy. In reply Rachel sent him a scan⁶ of the contract the three of us had signed. Mumford was amazed: in an email to us he wrote: “I never signed it!?!?”. It is hard to believe the relief we felt; if we weren't on different continents we'd probably have gone out drinking to celebrate. We should thank Rachel's incompetent assistant, the woman named Diana, for her benign neglect.

⁶You might recall that Rachel had earlier denied having access to a scanner at work.

Then followed a short flurry of telephone conversations with Springer; in one of them we learned that the major buyer of scientific ebooks is libraries, which tend to subscribe to large packages of them, without much attention to quality. The chief concern at Springer seems not to be quality, but breaking up the document into many small bits,⁷ so that there would be no pdf files of entire books floating around. By mid-December 2009 we started the process of terminating the contract; this entailed sending to Springer, by registered mail, a formal notice that they were in breach of the contract. We also notified by email everyone we had dealt with in Springer. This was the first time we heard back from Byrne or Heinze; Heinze sent us a short email, telling us no one had ever canceled a contract before, did we want to talk it over, he could arrange a teleconference. We emailed back saying of course we'd be happy to talk about it, although a teleconference might be hard to arrange in view of the time differences. We went on to outline our peace offer, our terms for staying with Springer: the short version is that Taka (Takahiro Shiota) was willing to do the typesetting, as long as Springer provided high quality scans and did the rest of the production at high quality. Springer didn't even bother to respond to our peace offer; they brushed it aside and just sent us page proofs to look at. This time we received both a paper and an electronic version; the paper proofs were of the entire book, what we saw of the ebook was two sample chapters.

To be fair the (paper) page proofs were the best Springer product we had seen yet; they were well below the quality we had been promised, but no longer a disgrace. The ebook version was not good; about twice as large as the best of the free versions, and noticeably poorer quality than even the mediocre ones. But by then we had gathered that, as far as Springer was concerned, quality was not a major concern in the case of ebooks. After agonizing over it, we decided to compromise and make a second peace offer to Springer: we would accept the current SPi product, even though its quality was much inferior to what we had been promised, but under some conditions.

Our experience with Springer led us to believe they would ignore this peace offer too and plow right ahead, as if we had said nothing. The way things stood was that, any time after 15 February 2010, we could cancel the contract by sending Springer notice, by registered mail, that the contract was null and void. Expecting the worst we went ahead and prepared the termination notice; it traveled to three continents to gather our signatures, and in early February it was sitting in Ching-Li's office waiting to be sent off to Springer. But, much to our surprise, Springer began negotiating over our second peace offer, making its own counteroffer. After some emails discussing the terms, Springer asked us to schedule a teleconference to iron out the details. We agreed; the

⁷The Mumford volume was broken up into 90 small "chapters".

teleconference took place the evening of February 17 (US time). The participants of this teleconference were the three of us, Rachel, and Hans Kölsch (the head of the North American mathematics division at Springer).

We had a pleasant enough chat about the details; we discussed issues of quality, price and the contract. Springer was willing to agree to change the contract through an addendum, but there were some points they did not want included in the contract, for example the price. This was basically OK with us, as long as we had in writing all our understandings. After all, our verbal agreements with Mark Spencer had been casually swept aside and ignored. Furthermore, as we pointed out at the teleconference, Springer had just changed owner, it had been sold by one investment bank and bought by another.⁸

At this point Hans Kölsch took over the telephone conversation and assured us we had nothing to fear from the new owners, they would be wonderful, he was going to send us a Springer press release the following day, just to show us how great the new owners were going to be. Sure enough, the next day we received the link to an announcement by Springer's management, lavishly praising the new owners. At this point we decided it would be best if the guys at Springer stopped treating us as fools. We wrote an email to Hans Kölsch, with copies to Rachel and Joachim Heinze. The email was in German, and the gist was that we didn't believe the propaganda press release; under the old owner Springer had expanded mightily, largely at the expense of quality, and all indications were that the new owner planned to forge right ahead and continue the expansion. What sort of company is it, in which reliable employees like Mark Spencer suddenly and inexplicably quit?

The response to our German email came immediately; it was the second and last email we ever received from Heinze. It was a thoughtful email. We wrote back again, once more in German; we explained our reason for staying with Springer rather than walking out of the contract. Our experience had taught us to have zero trust in Springer's production;

⁸Springer was sold in December 2009 to two private equity firms, EQT Partners, a Swedish company, and the Government of Singapore Investment Corporation, for €2.3 billion. According to articles in the UK press Springer's previous owners, two British private equity firms Candover and Cinven, earned about 29% a year on their initial investment of €600 million, giving a total net profit of about 1.7 times their investment. In the process they refinanced three times and had made 1.6 times their initial investment even before the sale, while saddling the company with debts of about €2.2 billion. For more detail see the articles by Rupert Neate in *The Daily Telegraph*, by Martin Arnold of the *Financial Times*, by Victoria Howley and Tessa Walsh of *Reuters*, by Victoria Howley and Simon Meads of *Reuters* and by Alexi Mostrous of *The Times*, the first three on 11 December 2009, the fourth on 9 December 2009 and the fifth on 12 December 2009.

they had done almost nothing right. At every turn they had used rock-bottom, dirt-cheap vendors, often at the expense of quality. They had failed to deliver even on their most basic promises: for example to promptly return the old offprints and book we had provided for them to scan. Notwithstanding our bad experience we decided we were safe enough with Springer, the reason being that it would only be a matter of time before the story of Mumford's Volume II spread through the mathematical community. If Springer were to renege on any of their written promises, it would only make matters worse for them.

Heinze and Kölsch fell silent after these two emails in German, and we were back to dealing with Rachel. When the details of the deal with Springer were all ironed out, it came down to the following:

1. We agreed to accept the SPi product, proofread it, and make only vital corrections. It was important to Springer to have the book ready in time for the ICM (August 2010), and we agreed to do our bit.
2. There would be no ebook version. If Springer wasn't willing to give away the ebook for free, then it should be scrapped. The quality didn't justify charging anything for it.
3. The book would cost no more than \$100.
4. The copyright would revert to Mumford and the editors in 2025.
5. Mumford and the three editors would receive, free of charge, the electronic version of the book. This is for their personal archives. In 2025, when the copyright reverts to them, they can make this electronic file publicly available.
6. The book would be printed on good paper; we received samples and agreed on the paper.
7. The book would be Smythe-sewn and bound in a binding of cardboard covered with cloth.

Over the next couple of weeks we went through two proofreadings, as SPi tried its best to repair the more glaring faults. Perhaps the biggest was that some articles had to be scaled back up. SPi had scaled down all the articles so that the text width became a uniform $4\frac{9}{16}$ inches. In the case of some articles, for example those reprinted from the *IHÉS Publications Mathématiques*, the effect was huge; the articles were shrunk by

some 35%. The result was reminiscent of the tiny print one finds on junk food packages at the supermarket, where one needs a magnifying glass to decipher all the unhealthy ingredients one is ingesting.

But this was not the only crass problem that had to be fixed: some pages were out of sequence, in some the text was off-center, occasionally different pages of the same article had the text reproduced at different magnification, one page was badly slanted, several pages had visibly warped lines, two consecutive pages of a three-page article had starkly different tone. Our first list of corrections ran into 47 annotated pages, in the second round we had a mere 33 pages.

At the beginning of July we received advance copies of the book. Ching-Li was the first to receive his; it arrived at his office already on Wednesday 30 June. The book was smythe-sewn all right, but the first problem Ching-Li noticed was that the binders had used too much glue; the spine of the book was firmly glued to its cover, and Ching-Li had trouble opening his book completely flat. To alleviate the problem he separated the spine cover from the book block, using the high-tech method of prying the spine cover free with a long screw driver. It worked, and he was then able to open his book flat. But in the process of poking with the screw driver he accidentally damaged the cover, and it became apparent that the cardboard was only covered in paper that looked like cloth, contrary to the promise Springer had made us in (7) above.

Taka's book arrived at his office on Friday 2 July. There was clearly too much glue, but Taka's copy was better than Ching-Li's, he could open it flat without employing carpentry tools. Taka is very methodical, and he wondered how the overglued book would fare if someone (God forbid) actually tried to read it, rather than admired its beauty as it adorned the shelf. So he leafed through it, opening and closing it a number of times, and by the time he was done the cover was in sad shape; he sent us photos of what had become of the beautiful binding.

Amnon was the last to receive his book; the book arrived on time, but at the beginning of July Amnon happened to be holidaying with his family in tropical North Queensland. His copy was probably the best of the three; there was still an excessive amount of glue, but the book opened and closed freely, and leafing through it for several minutes did not leave any obvious damage. Only occasionally did Amnon hear an ominous cracking sound coming from the glue-saturated book.

We reported this to Rachel, Heinze and Kölsch. Rachel responded promptly. As regards the material used for the cover, she informed us that

The word cloth is a semantic term that incorporates many different types of covers, including this one.

It was illuminating to learn that Springer can no longer tell the difference between cloth and paper. Imagine how much money the new owners of Springer could save if, instead of wearing suits made of cloth, Springer management switched to paper suits; no one at Springer would be able to tell the difference. On rainy days this could pose a problem, but we know that Springer has suppliers with plentiful stores of glue. If Springer repairs its paper suits with the liberal quantities of glue it uses in its books, then board meetings could turn into stiff, uncomfortable affairs.

On the subject of the excess glue, Rachel informed us that we must have accidentally received defective samples, production checked a few books and found no problem. As evidence she sent Ching-Li another copy. Indeed this fourth copy was much better than the previous three samples we had seen; there was still a bit too much glue, but it was within reason. We have since seen five additional copies, and they turned out to be similar to the fourth sample. Rachel might be completely right, maybe we were simply unlucky and the three initial books sent to us just happened to be defective. Nevertheless, our advice to the buyers of the book is to check the binding to make sure their copy is OK. The best way to tell if the quantity of glue is excessive is to check the spine; if the cover is glued tight to the spine then you have a problem. In any case, it lengthens the life of the book to pry the cover free from the spine of the book. If you can do it easily then the book is probably fine; if you need a hammer and a chisel, then try to exchange your copy for another.

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Newport Harbor is a place of tradition, where change comes slowly. One afternoon in August 2010 the old yachts were returning from a little spin around the harbor; each was carrying a load of tourists, who had paid hefty fees for the privilege of sailing on the once-grand boats, boats that, many years ago, had been crowned as victors of the America's Cup. As they neared the dock the boats gossiped with each other, grumbling about the general decline of the world, voicing unanimous agreement that back when they were young everything was much better, classier and higher quality. Back then boats were built as boats should be, nowadays even the repairs were being carried out on a tight budget, skimpily and with poor materials.

Meanwhile one of the passengers, feeling frisky and ready for fun, decided to play a prank on his friend; he stuck his hand in front of the lens just as the friend was about to take a photo with his camera. As it happens the friend had been following the flight of a rare bird, an African swallow, a bird that must have been blown way off course during its spring migration north, and somehow wound up in Newport Harbor. After

a couple of minutes of vain attempts catch up with the agile bird, along its effortless path full of fanciful curves and sudden turns, he had finally managed to have the zoom lens properly focused, with the bird clearly in view, and was about to immortalize the scene with a click, to have incontrovertible evidence that he could show off to his bird-watching buddies. Needless to say, he wasn't amused to have his perfect picture ruined; in retaliation he hurled at his friend a coconut which the swallow had dropped in its flight.

What transpired after the landing of the coconut will be told in a much-awaited sequel.