TUG 2016 in Toronto

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In 2016, the TUG conference was held in Toronto, Canada. The following was originally published on my blog (`preining.info/blog/tag/tug2016`) and edited for publication. So you want to know what you missed if you weren't able to be there? Here are my very personal recollections!

1   First pre-conference excursion

This year, the TUG conference was held in Toronto, Canada, and our incredible host Pavneet Arora managed to put together a busy program of excursions and events around the real conference. The −1st day (yeah, you read right, the minus-first day), that is two days before the actual conference started, was dedicated to an excursion to enjoying wines at the wine estate Château des Charmes, followed by a visit to Niagara Falls.

What can I say, if the first thing after getting out of the bus is a good wine, then there is nothing to go wrong . . .

I had arrived in Toronto already two days earlier in the late afternoon, and spent Friday relaxing, recovering from the long flight, walking the city a bit, trying to fix my cold, and simply going slowly. Saturday morning we met at a comfortable 10am in the morning (though still too early for me, due to jet lag and a slightly late evening before), but the first two hours of the bus drive allowed us to relax. Our first stop was the Château des Charmes, an impressive building surrounded by vineyards.

We were immediately started off with a sandwich lunch with white, red, and ice wine. Good start! And although the breakfast wasn't that long ago, the delicious sandwiches (at least the vegetarian ones I tried) were a good foundation for the wine.

After replenishing our energy reserves, we were ready to start our tour. Our guide, very, if not over, enthusiastic, explained that practically everything related to wine in Canada has been started at this Château from the current owner — the château system where farmer and wine producer are the same, import of European grapes, winter protection methods, wine making — I was close to forgetting our Roman and Greek ancestors.

At least she admitted that the ice wine was

brought over by an Austrian — but perfection was done here, where the controls of the government are much stricter than anywhere else . . . hmmm, somehow I cannot completely believe all this narrative, but at least it is enjoyable. So now that we know all about the history, we dive into the production process area, and the barrel space, always accompanied with extensive comments and (self-)praise.

After this exhaustive and exhausting round, we are guided back to the patio to taste another three different wines, a white (bit too warm, not so much my taste), a rosé (very good), and a red made from a new grape variety that has mutated first here on the Château (interesting). As I didn't have enough, I tried to get something out of the big containers directly, but without success!

Happy and content, and after passing through the shopping area, we boarded the bus to continue towards Niagara Falls. Riding by some quite nice houses of definitely quite rich people (although Pavneet told me that houses in Toronto are far more expensive than those here — how can anyone afford this?), we first have a view onto the lower Niagara river. A bit further on we are let out to see huge whirlpools in the river, where boat tours are bringing sightseers on a rough ride into the pool.

Only a slight bit further on we finally reached the falls proper, with a great view of the American Falls at full power, and the Horseshoe Falls further up.

We immediately boarded a boat tour making the short trip to the Horseshoe Falls. Lining up with hundreds and hundreds of other spectators, we prepare for the splash with red rain wear (the US side uses blue; forbid that any side would rescue a wrong person and create an illegal immigrant!). The trip passes first under the American Falls and continues right into the mist that fills all the area in the middle of the Horseshoe Falls. Spectacular impression with walls of water falling down on both sides.

Returned from the splash and having dried our feet, we walk along the ridge to see the Horseshoe Falls from close up. The amount of water falling down these falls is incredible, and so is the erosion that creates the brown foam on the water down in the

pool, made up from pulverized limestone. Blessed as we were, the sun was smiling all day and we got a nice rainbow right in the falls.

The surroundings of the falls are less impressive — Disneyland? Horror cabinet? Jodel bar? A wild mixture of amusement park style locations squeezed together and overly full with people — as if enjoying the nature itself would not be enough. All engulfed by ever-blasting loudspeaker music. The only plus I could find in this encampment of forced happiness was a local craft beer brewer where one could taste eight different beers — I made it only to four, though.

Finally night was falling, and we moved down to the falls again to enjoy the illumination of the falls.

After this wonderful finish we boarded the bus and back to Toronto, where we arrived around midnight. A long but very pleasurable Day Minus One!

2   Second pre-conference excursion

The second pre-conference day was dedicated to books and beers, with a visit to an exquisite print studio, and a beer tasting session at one of the noted craft breweries in Canada. In addition we could get a view into the Canadian lifestyle by visiting Pavneet's beautiful house in the countryside, as well as enjoying traditional style pastries from a bakery.

In short, a perfect combination for us typography and beer savvy freaks!

This morning we had rather an early start from the hotel. Soon the bus left downtown Toronto and entered countryside of Ontario, large landscapes filled with huge (for my Japanese feeling) estates and houses, separated by fields, forests and wild landscape. Very beautiful and inviting to live there. On our way to the printing workshop we stopped at Pavneet's house for a very short visit of the exterior, which includes mathematics in the bricking. According to Pavneet, his kids hate to see math on the wall — I would be proud to have it.

A bit further on we entered Erin, where the Porcupine's Quill is located. A small building along the street, one could easily overlook this rare jewel!

Even more so considering that according to the owners, Google Maps has a bad error which would lead you to a completely different location. This printing workshop, led by Tim and Elke Inkster, produces books in a traditional style using an old Heidelberg offset printing machine.
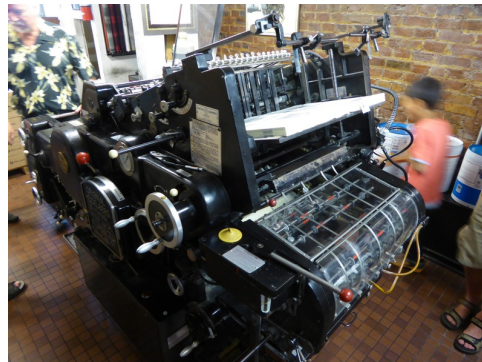
Elke introduced us to the sewing of folded signatures together with a lovely old sewing machine. It was the first time I actually saw one in action.

Tim, the head master of the printing shop, first entertained us with stories about Chinese publishers visiting them in the old cold-war times before diving into explanations of the actual machines present, like the Heidelberg offset printing machine.

In the back of the basement of the little studio is a huge folding machine, which cuts up the big signatures of 16 pages and folds them into bundles. An impressive example of tricky engineering.

Due to the small size of the printing studio, we were split into two groups, and while the other group got its guided tour, we grabbed coffee and traditional cookies and pastries from the nearby Holtom's bakery. Loads of nice pastries with various filling, my favorite being the slightly salty cherry pie, and above all the rhubarb-raspberry pie.

To my absolute astonishment I also found there a Viennese "Kaisersemmel", called "Kaiser bun" here, but keeping the shape and the idea (but

unfortunately not the crispy crackly quality of the original in Vienna). Of course I got two of them, together with a nice jam from the region, and enjoyed this "Viennese breakfast" the next day morning.

Leaving the Quill, we headed for a lunch in a nice pizzeria (I got Pizza Toscana) which also served excellent local beer — how I would like to have something like this in Japan! Our last stop on this day's excursion was Stone Hammer Brewery, one of the most famous craft breweries in Canada.

Although they won't win a prize for typography (besides one page of a coaster there that carried a nice pun), their beers are exquisite. We got five different beers to taste, plus extensive explanations on brewing methods and differences. Now I finally understand why most of the new craft breweries in Japan are making ales: ales don't need a long process and are ready for sale in rather short time, compared to e.g., lagers.)

Also at the Stone Hammer Brewery I spotted this very nice poster on the wall of the toilet. And I cannot agree more, everything can easily be discussed over a good beer — it calms down aversions, makes even the worst enemies friends, and is healthy for both the mind and body.

Filled with excellent beer, some of us (notably an unnamed US TEXnician and politician), stocked up on beers to carry home. I was very tempted to get a huge batch, but putting cans into an airplane seemed not to be an optimal idea. Since we are talking cans, I was surprised to hear that many craft beer brewers nowadays prefer cans due to their better protection of the beer from light and oxygen, both killers of good beer.

Before leaving we took a last look at the Periodic Table of Beer Types, which left me in awe about how much I don't know and probably never will know. In particular, I heard the first time of a "Vienna style beer" — Vienna is not really famous for beer, better

to say, it is infamous. So maybe this is a different Vienna than my home town that is meant here.

Another two hour bus ride brought us back to Toronto, where we met with other participants at the reception in a restaurant of Mediterranean cuisine, where I could enjoy for the first time in years a good tahina and hummus.

All around another excellent day, now I'd just like to have two days of holidays; guess I'll need to relax in the lectures starting tomorrow.

3   First day

The first day of the conference itself started with an excellent overview of what one can do with TEX, spanning from traditional scientific journal styles to generating router configuration for cruising ships.

All this was crowned with an invited talk by Kevin Larson from Microsoft's typography department on how to support reading comprehension.

Pavneet Arora, Passport to the TEX canvas
Pavneet, our never-sleeping host and master of organization, opened the conference with a philosophical introduction, touching upon a wide range of topics ranging from Microsoft, Twitter to the beauty of books, pages, and type. I think at some point he even mentioned TEX, but I can't remember for sure. His words set a very nice and all-inclusive stage, a community that is open to all kind of influences without any disregard or prejudice. Let us hope that this reflects reality. Thanks Pavneet.

Geoffrey Poore, Advances in PythonTEX
Our first regular talk was a report on recent advances in PythonTEX, a package that allows including Python code in your TEX document. Starting with an introduction to PythonTEX, Geoff discussed an improved verbatim environment, `fvextra`, which patches `fancyvrb`, and improved interaction between TikZ and PythonTEX.

As I am a heavy user of `listings` for my teaching on algebraic specification languages, I will surely take a look at this package and see how it compares to `listings`.

Stefan Kottwitz, TEX in industry I: Programming Cisco network switches using TEX   Next was Stefan from Lufthansa Industry Solutions, who reported first about his working environment, cruise ships (i.e., small floating towns) with a very demanding IT infrastructure which he has to design and implement. Then he introduced us to his way of generating IP configurations for all the devices using TEX. The reason he chose this method is that it allows him to generate at the same time proper documentation.

It was surprising for me to hear that by using TEX he could far more efficiently and quickly produce well designed and easily accessible documentation, which both helped the company as well as made the clients happy!

Stefan Kottwitz, TEX in industry II: Designing converged network solutions   After a coffee break, Stefan continued his exploration into industrial usage of TEX, this time about using Ti*k*Z to generate graphics representing the network topology on the ships.

Boris Veytsman, Making ACM LATEX styles   Next up was Boris, who brought us back to more traditional realms of TEX when he guided us into the abyss of ACM LATEX styles he tried to maintain for some time, until he plunged into a complete rewrite of the styles.

Frank Mittelbach, Alice goes floating: global optimized pagination including picture placements   The last talk before lunch (probably strategically placed, otherwise Frank could continue for hours and hours) was on global optimization of page breaks, using an algorithm analogous to TEX's line breaking. This has been a wish among TEXies for decades! Frank showed us what can and cannot be done with current (Lua)LATEX, and how to play around with global optimization of pagination, using Alice in Wonderland as a running example. We can only hope that his package is soon available for us to at least play around with.

Thai lunch   Pavneet organized three different cuisines for the three days of the conference. Today's was Thai with spring rolls, fried noodles, interesting orange noodles, and chicken something.

Michael Doob, baseball rules summary   After lunch Michael gave us an accessible explanation of the most arcane rules a game can have — the rules of baseball — by using pseudocode. I think the total number of loc needed to explain the overall rules would fill more pages than the New York phonebook, so I am deeply impressed by those who can under-

stand these rules. Some of us even wandered off in the late afternoon to see how a real game matched up with Michael's explanations.

Amartyo Banerjee, A Telegram bot for printing LATEX files   Next up was Amartyo who showed a Telegram (as in messenger application) bot, running on a Raspberry Pi, which receives (LA)TEX files and sends back compiled PDF files. While it is not ready for general consumption (if you sneeze the bot will crash!), it looks like a promising application. Furthermore, it is nice to see how open APIs (like Telegram) can spur development of useful tools, while closed APIs (including threatening users, like WhatsApp) hinder this.

Norbert Preining, Security improvements in the TEX Live Manager and installer   Next up was my own talk about beefing up the security of TEX Live by providing integrity and authenticity checks via GnuPG, a feature that has been introduced with the recent release of TEX Live 2016.

The following discussion gave me several good ideas on how to further improve security and usability.

Arthur Reutenauer, The TEX Live M subproject (and open discussion)   Arthur presented the TEX Live M (where the M stands for Mojca, who couldn't attend, unfortunately) project: Their aim is to provide a curated and verified subset of TEX Live that is sufficiently complete for many applications, and easier for distributors and packagers.

We had a lively discussion after Arthur's short presentation, mostly about why TEX Live does not have an "on-the-fly" installation like MiKTEX. I insisted that this is already possible, using the "tex-on-the-fly" package which uses the `mktextex` infrastructure script, but also caution against using it by default due to delays induced by repeatedly reading the TEX Live database. I think this would be a worthwhile project for someone interested in learning the internals of TEX Live, but I am not sure whether I want to invest time into this feature myself.

Another discussion point was about testing infrastructure, which I am currently working on. This is in fact high on my list, to have some automatic minimal functionality testing — a LATEX package should at least load!

Kevin Larson, Reading between the lines: Improving comprehension for students   Having a guest from Microsoft is rare in our somewhat Unix-centered environment, so big thanks to Pavneet again for setting up this contact, and big thanks to Kevin for coming.

Kevin gave us a profound introduction to reading disabilities and how to improve reading comprehension. Starting with an excursion into what makes a font readable and how Microsoft develops optimally readable fonts, he then turned to reading disabilities like dyslexia, and how markup of text can increase students' comprehension. He also toppled my long-term belief that dyslexia is connected to the similar shape of letters which are somehow visually malprocessed — this was the scientific theory from the 1920s through the 70s, but since then all researchers have abandoned this interpretation; dyslexia is now linked to problems linking shape to phonemes.

Kevin did an excellent job with a slightly difficult audience — some people being picky about grammar differences between British and US English and trying to derail the discussion, and even more the high percentage of typographically somehow sophisticated participants.

After the talk I had a lengthy discussion with Kevin about if/how this research can be carried over to non-Roman writing systems, in particular Kanji/Hanzi based writing systems, where dyslexia probably shows itself in different context. Kevin also mentioned that they want to add interword space to Chinese to help learners of Chinese (children, foreigners) parse text, and studies showed that this helps a lot in comprehension.

On a meta-level, this talk bracketed with the morning introduction by Pavneet, describing an open environment with stimulus back and forth in all directions. I am very happy that Kevin took the time to come in his tight schedule, and I hope that the future will bring better cooperation — at the end we are all working somehow toward the same ends — only the tools differ.

Dinner   After the closing of the session, one part of our group went off to the baseball game, while another group dived into a nearby Japanese-style Izakaya where we managed to kill huge amounts of sake and quite an amount of food. The photo shows me after the first bottle of sake, while just sipping an intermediate small amount of genshu (a strong undiluted sake) before continuing to the next bottle.

An interesting and stimulating first day of TUG, and I am sure that everyone was looking forward to day 2.

4   Second day

The second day of TUG 2016 was again full of interesting talks, spanning from user experiences to highly technical details of astrological chart drawing, and graphical user interfaces for TikZ to the invited talk by Robert Bringhurst on the Palatino type family.

With all these interesting things there is only one complaint — I cannot get out of the dark basement and enjoy the city . . .

After a evening full of sake and a good night's sleep we were ready to dive into the second day.

Kaveh Bazargan, A graphical user interface for TikZ   The opening speaker of Day 2 was Kaveh. He first gave us a quick run-down on what he is doing for business and what challenges publishers are facing in these times. After that he introduced us to his new development of a command line graphical user interface for TikZ. I wrote "command line" on purpose, because the editing operations are short commands issued on a kind of command line, which give an immediate graphical feedback. The base of the technique is a simplified TikZ-like meta language that is not only easy to write, but also easy to parse.

While the set of supported commands and features of TikZ is not complete, I think the basic idea is a good one, with plenty of potential.

Matthew Skala, Astrological charts with horoscop and starfont   Next up was Matthew who introduced us to the involved task of typesetting astrological charts. He included comparisons with various commercial and open source solutions, where Matthew of course, but me too, felt that his charts came off quite well!

As an extra bonus we got some charts of famous singers, as well as the TUG 2016 horoscope.

David Tulett, Development of an e-textbook using LaTeX and PStricks   David reported on his project to develop an e-textbook on decision modeling (lots of math!) using LaTeX and PStricks. His e-book is of course a PDF. There was a lot of very welcome feedback — legally copyable (CC-BY-NC-ND) textbooks for sciences are rare and we need more of them.

Christian Gagné, An Emacs-based writing workflow inspired by TeX and WEB, targeting the Web   Christian's talk revolved around editing and publishing using `org-mode` of Emacs and the various levels of macros one can use in this setup. He finished with a (sadly) incomprehensible-to-me vision of a future equational logic-based notation mode. I have used equational logic in my regular job, and I am not completely convinced that this is a good

approach for typesetting and publishing — but who knows, I am looking forward to a more logic-based approach!

Frank Mittelbach, In memoriam: Sebastian Rahtz (1955–2016) Frank recalled Sebastian's many contributions to a huge variety of fields, and recalled our much-missed colleague with many photos and anecdotes.

Jim Hefferon, A LATEX reference manual Jim reported about the current state of an unofficial LATEX reference manual, which tries to provide documentation orthogonal to the many introduction and user guides available, by providing a straight down-to-earth reference manual with all the technical details required. He urged potential contributors to take a look (`http://home.gna.org/latexrefman`).

As I also had to write a reference manual for a computer language, it was very interesting to see how this dealt with many of the same problems I am facing.

Arthur Reutenauer, Hyphenation past and future: hyph-utf8 and patgen Arthur reported on the current state of the hyphenation pattern project, and in particular the license and usage hell they recently came into with large corporations simply grabbing the patterns without proper attribution. In a second part, he gave quick rough sketch of his design of a reimplementation of `patgen`.

Federico Garcia-De Castro, TEXcel? As an artist organizing large festivals Federico has to fight with financial planning and reports. He seemed not content with the abilities of the usual suspects, so he developed a way to do Excel-like bookkeeping in TEX. Nice idea! I hope I can use this system for the next conference I have to organize.

Jennifer Claudio, A brief reflection on TEX and end-user needs The last speaker of the morning was Jennifer who gave us a real-world end-user's view of the TEX environment, and the respective needs. This sort of talk is a very much welcomed contrast to technical talks and hopefully all of us developers take her suggestions to heart.

Jaeyoung Choi, MFCONFIG: Metafont plug-in module for the Freetype rasterizer Jaeyoung reported about an impressive project to make Metafont fonts available to `fontconfig` and thus windowing systems. He also explained their development of a new font format Stemfont, which is a Metafont-like system that can work also for CJK fonts, and which they envisage to be built into all kinds of mobile devices.

Michael Sharpe, New font offerings: Cochineal, Nimbus15 and LibertinusT1Math Michael reported on his latest font projects. The first two being extensions of the half-made, half-butchered, rereleased URW fonts, as well as an extended math font project.

I talked to him over lunch one day, and asked him how many man-days he need for these fonts, and his answer was, a lot: For the badly messed up new URW fonts, like Cochineal, he guessed about five man-months of work, while other fonts only needed a few days. We all can be deeply thankful to all the work he is investing into all these font projects.

Robert Bringhurst, The evolution of the Palatino tribe The second invited talk was from Robert Bringhurst, famous for his wide contributions to typography, book culture in general, as well as poetry. He gave a quick historic overview on the development of the Palatino tribe of fonts, with lots of beautiful photos.

Unfortunately, I was a bit disappointed that the presentation was more a listing of historical facts than his own ideas and thoughts. Of course, a person as accomplished as Robert Bringhurst is so full of anecdotes and background knowledge that it was still a great pleasure to listen and lots of things to learn, I only hoped for a bit more enthusiasm.

TUG Annual General Meeting The afternoon session finished with the TUG Annual General Meeting; Stefan Kottwitz wrote a separate report, following this one.

Herbert Schulz, Optional workshop: TeXShop tips & tricks After the AGM, Herb from MacTEX and TeXShop gave a workshop on TeXShop. Since I am not a Mac user, I skipped.

Another late afternoon program consisted of an excursion to Eliot's bookshop, where many of us stocked up on great books. This time again I skipped and took a nap.

Dinner In the evening we had a rather interesting informal dinner in the food court of some building, where only two shops were open and all of us lined up in front of the Japanese curry shop, and then gulped down from plastic boxes. Hmm, not my style I have to say, not even for informal dinner. But at least I could meet up with a colleague from Debian and get some GPG key signing done. And of course, talking to all kinds of people around.

The last step for me was in the pub opposite the hotel, with beer and whiskey/scotch selected by specialists in the field.

5　Third day

The last day of TUG 2016, or rather the last day of talks, brought four one-hour talks from special guests, and several others, where many talks told us personal stories and various histories. A great finish of a great conference.

Jennifer Claudio, The case for justified text
Due to a strange timezone bug in my calendar program, I completely overslept a morning meeting and breakfast, as well as the first talk, so unfortunately I don't have anything to report about this surely interesting talk comparing justification in various word processors and TeX.

Boris Veytsman and Leila Akhmadeeva, Are justification and hyphenation good or bad for the reader?　Still half dizzy and without coffee, I unfortunately couldn't follow this talk (with Leila joining us via video from Russia), and only woke up near the end when there was a lot of interesting discussion about speed reading and its non-existence (because it is simply skimming over text), and improvements on reading comprehension.

Charles Bigelow, Looking for legibility　The last special guest, Charles Bigelow, presented a huge pool of research and work on readability, and how attitude and usage of fonts change over time. A very involving and well laid out talk, full of interesting background images and personal opinions and thoughts. Chuck also touched on topics of readability on modern devices like e-readers and mobiles. He compared recent developments in font design for mobile devices with their work on Lucida 20+ years ago, and concluded that both arrived at the same solutions.

A very educating and amusing talk packed full with information on readability. I will surely revisit the recording in a study session.

David Walden, Some notes on the history of digital typography　David touched on many topics of the history of digital typography which he has experienced himself over the years: First the development of newspaper production and printing, then the evolution from simple text editors over word processors to full-fledged DTP programs. Finally he touched on various algorithmic problems that appear in the publishing business.

Tim Inkster, The beginning of my career
Tim, our fantastic guide through his print shop the Porcupine's Quill on the second excursion day, talked about his private ups and downs in the printing business, all filled with an infinite flow of funny stories and surprising anecdotes. Without slides, or anything but his voice and stories, he kept us hanging on his words without a break. I recommend watching the recording of his talk because one cannot convey the funny comments and great stories he shared with us in this simple and so entertaining talk.

Joe Clark, Type and tiles on the TTC　Joe unveiled the history of the rise and fall of underground types and tiles in Toronto. It is surprising to me that a small metro network as in Toronto can have such a long history of changes of design, layout, presentation. Some of the photos completely stymied me — how can anyone put up signs like that? I was thinking. To quote Joe (hopefully I remember correctly):

You see what happens without adult supervision.

Abdelouahad Bayar, Towards an operational (LA)TeX package supporting optical scaling of dynamic mathematical symbols　A technical talk about an attempt to provide optical scaling of mathematical symbols. As far as I understand it tries to improve on the TeX way of doing extensible math symbols by gluing parts together at the font level. It seems to be highly involved and technically interesting project, but I couldn't completely grasp the aim of it.

John Plaice, Zebrackets: A score of years and delimiters　John introduced us to Zebrackets, stripped parentheses and brackets, to help us keep track of pairing of those beasts. But as we know, zebras are very elusive animals, . . . and so we saw lots of stripped brackets around. The idea of better markup of matching parentheses is definitely worth developing.

Charles Bigelow, Probably approximately not quite correct: Revise, repeat　Chuck's second talk, this time on the history of the Lucida fonts, from the early beginnings drawn on graph paper to recent developments using FontLab producing OpenType fonts. A unique crash course through the development of one of the biggest families of fonts, and one of the first outside Computer Modern with support for proper math typesetting in TeX.

Aggressively legible!

This was one of the key phrases that popped up again and again — aggressively legible — mostly with negative connotations, toward too-fat symbols or too-big Arabic letters. But for me this font family is still close to my heart. I purchased it back then from Y&Y for my PhD thesis, and since then have upgraded to the TUG version including the OpenType fonts, and I use them for most of my presentations. Maybe I like the aggressive legibility!

Chuck slid in lots of nice comments about his partner Kris Holmes, the development practices in their work, stories of business contacts, and many more, making this talk a very lively and amusing, and at the same time very educating talk.

Joe Clark, Type and Tile Subway Tour This concluded the TUG conference talks, and we thanked Pavneet for his excellent organization. But since we still have up to two days more of excursions, many people dispersed quickly, just to meet again for a optional Type and Tile Tour — 3–5 subway stops with discussion of typesetting there.

This guided tour through the underground of Toronto, guided by Joe Clark who spoke in the morning on this topic, was simply too popular. I think there were around 25 participants when we left. I thought that this will not work out properly, and decided to leave the group and wander around alone.

Dinner The last program point for the day was dinner with a blues music concert at the nearby Jazz Bistro. Excellent live music in a bit slick and sophisticated atmosphere was a good finish for this excellent day. With Herb from MacTeX and his wife we killed two bottles of red wine, before slowly tingling back to the hotel.

6 Fourth day

Talks have finished, and as a special present to the participants, Pavneet has organized an excursion that probably was one of the best I ever had. First we visited the Toronto Reference Library where we were treated to a delicious collection of rare books (not to mention all the other books and architecture), and then a trip through the Ismaili Centre Toronto and the Aga Khan Museum.
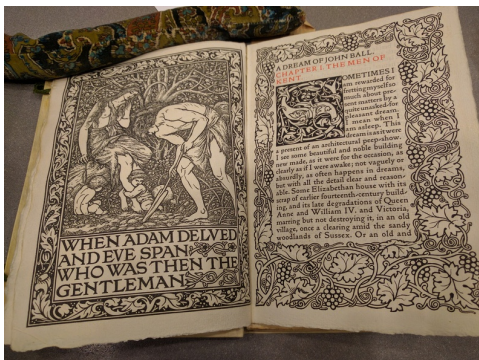
*Kelmscott press edition from 1892 of William Morris' A Dream of John Ball.*

All these places were great pieces of architecture with excellent samples of the writing and printing art. And after all that and not to be left out, the conference dinner evening cruise!

Our first stop was the Toronto Reference Library. Designed by Raymond Moriyama, it features a large open atrium with skylights, and it gives the library an open and welcoming feeling. We were told that it resembles a teacup that needs to be filled — with knowledge.

The library also features running water at several places — the architect had the idea that natural ambient noise is more natural for a library than the unnatural silence that never happens anyway.
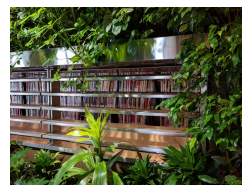
 Originally there was lots of greenery hanging into the atrium, resembling the Hanging Gardens, but that has been scrapped due to financial reasons. But there was still this beautiful green oasis-like wall in a corner of the library.

We were guided first to the fifth floor where the special collection is housed. And what a special collection. The librarian in charge had laid out about 20 exquisite books starting from early illuminated manuscripts over incunabula to high pieces of printing art from the 18th and 19th cen- turies. Here we have an illuminated manuscript in Carolingian minuscule.

It was surprising for all of us in this special collection that all these books were simply laid out in front of us, that the librarian touched them and flipped pages without gloves, and above all, that he told us that if one wants, it is common practice to check out these books for study sessions and enjoy them on the spot in the reading room. I don't know any other library that allows you to actually handle such rare and beautiful specimens!

In one of the books I found by chance a map of

my hometown of Vienna. On this map from very old times, the place where I grew up is still uninhabited somewhere in the far upper right corner of the map. Times have changed.

After we left this open and welcoming treasure house of beautiful books, we moved to the Aga Khan Museum and Ismaili Centre Toronto, which are standing face-to-face separated by some water ponds in the Aga Khan park a bit outside of central Toronto. Below is the Ismaili Centre as seen from the Aga Khan Museum entrance. The big glass dome is the central prayer room, and is illuminated at night. Just one detail — one can see in the outer wall one part that looks like glass, too. This is the prayer alcove in the back of the prayer hall, and is made from huge slabs of onyx that are also lit up in the night.

The Ismaili Centre, designed by Charles Correa, combines modern functional and simple style with the wonderful ornamental art of the Islam heritage. The inside of the Ismaili Centre features many pieces of exquisite art — calligraphy, murals, stone work.

Following the Ismaili Centre we turned to the Aga Khan museum which documents Islamic art, science, and history with an extensive collection. We didn't have much time, and in addition I had to do some firefighting over the phone, but the short trip through the permanent collection with samples of excellent calligraphy was amazing.

Banquet cruise   After returning from this lovely excursion and a short break, we set off for the last stop for tonight, the dinner cruise. After a short bus ride we boarded our ship and off we went. Although the beer selection was not on par with what we were used to from craft breweries, the perfectly sized boat with two decks and lots of places to hang around invited us to many discussions and chitchats. And finally we could enjoy also the skyline of Toronto.

After the dinner we had some sweets, one of which was a specially-made cake with the TUG 2016 logo on it. I have to say, it was not only this cake but the whole excellent, overwhelming, food we had during all these days, that will make me go on a diet when I am back in Japan. Pavneet organized for the lunch breaks three different style of kitchens (Thai, Indian, Italian), then the excursions to local brewers and and and... If it wouldn't be for TEX, I would call it a "Mastkur".

During the cruise we also had a little ceremony thanking Jim for his work as president of TUG, and above all Pavneet for this incredible, well organized conference. I think everyone agreed that this was the most exceptional TUG conference in some time.

During this, Pavneet also announced the winners of the TUG 2016 fountain pen auction. These pens have much history and travel behind them (`tug.org/tug2016/pens.html`), and were presented to the special guests of the conference. Two remaining pens were auctioned with proceeds going to TUG. The first one was handed over to Steve Grathwohl, and — to my utter surprise — the second one to myself. So now I am a happy owner of a TUG 2016 fountain pen. What a special feature!

Just one more detail about these pens: They are traditional style, so without ink capsules; one

needs to insert the ink with a syringe. I guess I need to stock up a bit at home, and more importantly, train my really ugly handwriting, otherwise it would be a shame to use this exquisite tool.

We returned to the harbor around 10pm, and back to the hotel, where there was much greeting and thanking at the end of a wonderful day.
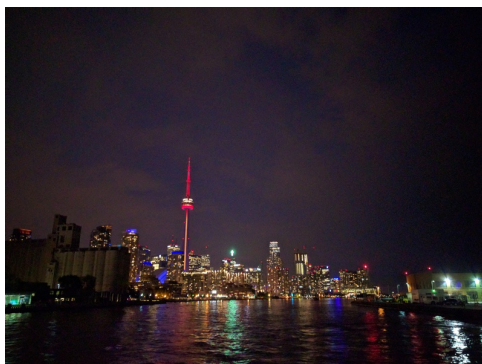
I will leave on Friday morning to meet with friends, thus I will not be participating in (and not reporting on) the last excursion of TUG 2016 to the Georgian Bay area. I will leave Toronto and TUG 2016 with (nearly) exclusively good memories of excellent talks, great presentations, wonderful excursions, and lots of things I have learned. I hope to see all of the participants at next year's TUG meeting — and I hope I will be able to attend it.

One more thanks to Pavneet, you have done an incredible job. And last but not least, thanks to your lovely wife for letting you do all this, I know how much time we stole from her.

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Excursion to Georgian Bay

On Friday, although many participants had left, there was one more excursion, to the Georgian Bay area. This large bay, extending off of Lake Huron, was the inspiration to the Canadian impressionist landscape painters known as the Group of Seven, who were active from the period before the first World War until the early 1930s.

We first visited a public beach on the bay — more like a large lake — where several of our group took advantage of the opportunity to swim in the calm water. (They assured me that it was quite pleasant.) The rest of us enjoyed the scenery, woods and islands as far as the eye could see, with small cottages along the shore, and imagined what it would look like in other seasons.

From Georgian Bay we made our way to the McMichael Canadian Art Collection, a public gallery in the village of Kleinburg, devoted largely to the Group of Seven. Built around the collection of Robert and Signe McMichael, and housed in their much-expanded home, the collection, buildings, and property on which it is located were donated in 1965 by the McMichaels to the Province of Ontario. Since then, the collection has been augmented by other Canadian works donated by collectors, as well as by artists themselves. It now includes many contemporary pieces, and both traditional and contemporary works by First Nations and Inuit artists.

Our guide first introduced us to the works of the Group of Seven. Although many of the Collection's holdings of this Group were temporarily away for exhibit in larger cities' museums, the core collection on display showed a remarkable sensitivity to the Canadian landscape in all its moods. The building itself was designed by the Canadian architect Leo Venchiarutti to be an appropriate home for the collection, as well as (before it became a gallery) for the McMichaels. Many of the windows look out on the beautiful woods surrounding the building.

In addition to the permanent collection, several special exhibits were on display. These included a showing of contemporary textile art by Colleen Heslin; a "studio" selection of colorful paintings by Jack Bush; and drawings and paintings from the period of the World War by A.Y. Jackson (one of the Group of Seven) and Tom Thomson (closely affiliated with the Group of Seven, though not a member; he died before the Group got its name) showing their influences on one another.

One area we didn't have time to explore adequately was the sculpture garden, which occupies the grounds of the Collection. The pieces nearest the main building, and those we could glimpse farther away in the wooded parkland, are a compelling invitation to return.

This is the 50th anniversary of the McMichael Collection as a public institution. The website, mcmichael.com, is well worth a visit.

⋄ Barbara Beeton