

Douglas Hayward fonds

Compiled by Christopher Hives (2000)

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Fonds Description

Douglas Hayward fonds. – 1958-1999.

35 cm of textual records.

17 audio cassettes.

44 photographs.

3 videos.

Biographical Sketch

Born in Cular, Saskatchewan in 1910, Lloyd Douglas Hayward attended the University of Saskatchewan where he earned his BA in Honours Chemistry in 1943. In 1949 he earned a PhD from McGill University. He joined the University of British Columbia Dept. of Chemistry as an assistant professor in 1951 where he remained until his retirement in 1984. Following his retirement from the UBC, Hayward devoted much of his time to popularizing chemistry particularly among school children.

Hayward began giving chemistry lectures/demonstrations as part of a *Do-It-Yourself Chemistry (DIYC)* program in elementary schools in April 1986. After visiting several more schools a story about Hayward and his school presentations appeared in the *Richmond Review*. Shortly thereafter, he began writing a regular science column for the newspaper. Hayward continued visiting elementary schools around the Lower Mainland and throughout the province where he gave free lecture-demonstrations as part of the *DIYC* program. The program was sponsored by the Vancouver Section of the Chemical Institute of Canada. The philosophy underlying *DIYC* was quite simple the experiments were to be done safely by an 11-year-old in the modern kitchen. Hayward wanted to "avoid stinks, bangs, magic and politics." The primary goal according to Hayward was to "show students, teachers, and parents that chemistry is fun, interesting and safe..Without a knowledge of chemistry no other science or technology can advance. It is absolutely essential for our future."

In 1988, Hayward, in conjunction with Gordon Bates from UBC's Dept. of Chemistry, developed a 30-minute video tape and manual intended to allow *Do-It-Yourself Chemistry* to reach more schools and help to involve chemical professionals from across Canada in similar programs. Subsequent demand for an expanded and enhanced manual resulted in a second publication in 1990. The experiments included in that booklet came from Haywards columns that had originally appeared in the *Richmond Review*, the *Vernon Daily News* and the *Alaska Highway News*. Hayward and Bates continued their collaboration with the publication of *Its Elementary: Investigating the Chemical World* (1994).

In addition to his in-class lectures-demonstrations, columns and publications, Hayward also had a bi-weekly radio program on CFMI in Vancouver. By 1997 *DIYC* presentations had involved approximately 18,000 students in grades 4-7 in BC schools and an additional 25 workshops for teachers and parents had also been staged. Hayward served as chairman of the Vancouver and Lower Mainland Regional Science Fairs and on the steering committee for Science Olympics for British Columbia.

In recognition for his efforts in popularizing chemistry among youngsters, Hayward received the Eve Savory Award for science communication in 1991 and the following year he received the UBC Alumni Associations Faculty Citation Award which is given to faculty members who have given outstanding service to the general community.

Scope and Content

The fonds consists of two series biographical information and *Do-It-Yourself Chemistry / Home Chemistry*. The former includes information about Hayward including articles, CV, copies of publications and a list of his patents. The second series consists of material relating to the development of the *Do-It-Yourself Chemistry* program. It includes copies of newspaper columns, list of schools visited, samples of thank you letters from students, *DIYC* publications, photographs showing Hayward with students in various classrooms, and cassette recordings of his CFMI radio show and other interviews.

Series Descriptions

Biographical Information. -- 1958-1992.

4 cm of textual records.

Series consists of newspaper clippings about Hayward and a copy of his CV (1987). It also includes a list of his publications, copies of off prints and several patents held by Hayward.

Do-It-Yourself Chemistry / Home Chemistry. -- 1987-1999.

31 cm of textual records.

44 photographs.

17 audio cassettes.

3 video tapes.

The series consists of copies of newspaper columns, list of schools visited, samples of thank you letters from students, *DIYC* publications, photographs showing Hayward with students in various classrooms, and cassette recordings of his CFMI radio show and other interviews.

File List

BIOGRAPHICAL INFORMATION

- 1-1 Biographical Material - Newspaper clippings (1987-1992), copy of CV (1987)
- 1-2 Index of DH's publications
Offprints of DH's articles (1958-1987)
- 1-3 Patents held by DH

DO-IT-YOURSELF CHEMISTRY / HOME CHEMISTRY

Hand written and typescript copies of columns by DH that appeared in the Richmond Review (Feb. 1987 - November 1991)

- 1-4 Handwritten manuscript index to columns (n.d.)
Columns 001-019:
 - 001 "Measuring the Oxygen in the Air" (Feb. 25, 1987)
 - 002 "Archidedes and the body" (March 4, 1987)
 - 003 "Egg experiments" (March 11, 1987)
 - 004 "Sugar and lightening" (March 18, 1987)
 - 005 "Hydrogen peroxide and meat'n'potatoes" (March 25, 1987)
 - 006 "Memories and brain food" (April 1, 1987)
 - 007 "Microwaves and water" (April 8, 1987)
 - 008 "Sprouts and water" (May 6, 1987)
 - 009 "Sun and water" (May 13, 1987)
 - 010 "A breathe of air" (May 20, 1987)
 - 011 "Baking, brewing and body-building" (May 27, 1987)
 - 012 "Magnetic chemistry" (June 10, 1987)
 - 013 "Electrons and atomic glue" (June 17, 1987)
 - 014 "Soap and cells" (June 24, 1987)
 - 015 "Solar caluculator/spectrometer" (July 8, 1987)
 - 016 "Experimenting with Miss Muffet's curds and whey" (July 15, 1987)
 - 017 "Making a King's meal" (July 22, 1987)
 - 018 "Dyes show true colors" (July 29, 1987) [Reprinted Vernon Daily News May 9, 1989)
 - 019 "Tossing bubbles" (September 9, 1987)

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Columns 020-043:

- 020 "Growing crystals" (September 16, 1987)
- 021 "Color your life with carotene" (September 23, 1987)
- 022 "Elements at home" (September 30, 1987) [Reprinted Vernon Daily News April 25, 1989]
- 023 "Animals, plants can be left-handed too" (October 7, 1987)
- 024 "Salty tale about Ice cubes" (October 21, 1987)
- 025 "Thawing out with solar energy" (November 4, 1987)
- 026 "Home kaleidoscope makes milky colors" (November 18, 1987) [Reprinted Vernon Daily News May 16, 1989]
- 027 "Cleaner can detect, measure blood stains" (December 9, 1987) [Reprinted Vernon Daily News January 10, 1989]
- 028 "Sending signals" (December 23, 1987) [Reprinted Vernon Daily News May 30, 1989]
- 029 "Dusting up on molecular science" (January 20, 1988)
- 030 "A salty tale crystallizes" (February 10, 1988)
- 031 "Making rock candy" (February 24, 1988) [Reprinted Vernon Daily News January 17, 1989]
- 032 "Seeking shooting stars" (March 9, 1988) [Reprinted Vernon Daily News April 4, 1989]
- 033 "This experiment's a nail biter" (March 23, 1988) [Reprinted Vernon Daily News March 28, 1989]
- 034 "Casting up an experiment" (April 20, 1988) [Reprinted Vernon Daily News March 7, 1989]
- 035 "Baking up an experiment" (May 4, 1988)
- 036 "Tea time" (May 18, 1988) [Reprinted Vernon Daily News November 15, 1988]
- 037 "Cheese please" (June 1, 1988)
- 038 "A gel of an idea" (September 14, 1988)
- 039 "Why apples turn brown" (September 28, 1988)
- 040 "Counting coins a profitable experiment" (October 12, 1988) [Reprinted Vernon Daily News Nov. 8, 1988]
- 041 "Casting the dye" (October 26, 1988) [Reprinted Vernon Daily News November 19, 1988]
- 042 "Boning up on your bones" (November 9, 1988)
- 043 "Making waves" (November 23, 1988)

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Columns 044-061:

- 044 "Apple a day makes the world go around" (December 7, 1988)
- 045 "A light show" (December 21, 1988)

- 046 "Curious quartz" (January 4, 1989)
- 047 "Getting inside those dark sunglasses" (January 18, 1989)
- 048 "The secret of shells" (February 1, 1989)
- 049 "Up, up and away" (February 7, 1989) [Reprinted Vernon Daily News March 21, 1989]
- 050 "Pop goes the bottle" (March 3, 1989)
- 051 "Space crystals" (March 15, 1989) [Reprinted Vernon Daily News April 11, 1989]
- 052 "Hot rocks keep us warm" (April 5, 1989) [Reprinted Vernon Daily News April 18, 1989]
- 053 "A bloody experiment" (April 18, 1989)
- 054 "Hunting down chemical elements" (May 3, 1989)
- 055 "Dandelions make dandy rubber fun" (May 17, 1989)
- 056 "Star light, star bright, first stars we see tonight" (May 31, 1989)
- 057 "Experimenting with geometric shapes" (June 15, 1989)
- 058 "Making rainbows as easy as refracting light" (September 29, 1989)
- 059 "Plumping raisins" (October 11, 1989)
- 060 "Make you own milky way" (October 25, 1989) [Reprinted Alaska Highway News Nov. 8, 1989]
- 061 "Peking woman - the first chemist" (November 8, 1989)

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Columns 062-107:

- 062 "Where did the Periodic Table come from?" (November 22, 1989)
- 063 "A Wealth of information is stored in our brain cells" (December 6, 1989)
- 064 "Gold - The luxury metal" (December 17, 1989)
- 065 "Tracking the light through the ages" (January 10, 1990)
- 066 "How can we be like Argon?" (January 21, 1990)
- 067 "With home chemistry colors are fluid" (February 11, 1990)
- 068 "Water: a magical and precious substance" (February 25, 1990)
- 069 "Study the color purple in your home" (March 18, 1990)
- 070 "You can recycle your own newspapers" (April 15, 1990)
- 071 "Tricks you can do with starch" (April 29, 1990)
- 072 "Grow your own catnip and give your pet a treat" (May 13, 1990)
- 073 "Sprout your own seeds for fast growing time" (May 27, 1990)
- 074 "Students carry away science awards" (June 3, 1990)
- 075 "Astronomer seeks answers to flickering Dipper stars" (June 17, 1990)
- 076 "Catch a falling supernova" (July 8, 1990)
- 077 "Mirror, mirror on the wall" (July 15, 1990)
- 078 "Crunching sounds actually vibrations of broken crystals" (July 29, 1990)
- 079 "It's not just soda pop it's diet: find out the difference" (September 2,

- 1990)
- 080 "Why can birds see polarized light that humans can't detect?" (September 16, 1990)
- 081 "Experiments to measure the sun by" (September 30, 1990)
- 082 "What day is it, ask the Egyptians" (October 14, 1990)
- 083 "Rock and roll with minerals and fossils" (October 28, 1990)
- 084 "Tricks to measuring date back to ancients" (November 11, 1990)
- 085 "Carbon changes from soot to diamonds" (November 25, 1990)
- 086 "Ice, cold snow can be man's best friend" (December 9, 1990)
- 087 "Handy aluminum is helpful for solar power demonstration" (January 6, 1991)
- 088 "Ford showman made magic of the auto" (January 20, 1991)
- 089 "More to silver than a pretty face" (February 3, 1991)
- 090 "Skin" (n.d.)
- 091 "'Pysanki' a Ukranian tradition" (March 3, 1991)
- 092 "Pulpmils enter the spaceage" (April 21, 1991)
- 093 "Copper" (n.d.)
- 094 "Onions" (n.d.)
- 095 "Science and Technology in BC" (n.d.)
- 096 "Honey" (n.d.)
- 097 "Periodic Table quiz" (n.d.)
- 098 "Atoms" (n.d.)
- 099 "Bacteria" (n.d.)
- 100 "Chemistry celebrates 100th appearance" (November 17, 1991)
- 101 "Diamonds" (n.d.)
- 102 "Methane" (n.d.)
- 103 "Elemental Poetry" (n.d.)
- 104 "New atoms" (n.d.)
- 105 "Heavy water" (n.d.)
- 106 "Rock age" (n.d.)
- 107 "The elementary universe" (n.d.)
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- 1-8 List of Schools visited by DH to June 1999
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- 1-9/10 Samples of thank you letters from students to DH (1986-1987)
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- 1-11 Home Chemistry Radio programs - CFMI 101 FM

Educational Packages/Publications

Do It Yourself Chemistry Experiments for Elementary Schools (1988, 1990)
[includes videos]

Douglas Hayward and Gordon S. Bates, Its Elemental: Investigating the
Chemical World (1994)

"What's Around My Sandwich; Teacher's Manual" (1990) [includes video and
cassette tape]

Cassette Tapes (1988-1994)

16 tapes which include recordings from Hayward's CFMI radio program as
well as assorted interviews with him on the subject of "Do-It-Yourself
Chemistry".

Photographs

[Photographs removed from fonds and stored in the UBC Photographs file
cabinets]

UBC 45.1/1 p	Hayward and students at Mission Hill Elementary School – Vernon (October 1988) 5 views
UBC 45.1/2 sp	Portrait of Hayward (ca. 1990)
UBC 45.1/3 p	Hayward and students at Fleetwood Elementary School - North Surrey (September 1991)
UBC 45.1/4 p	Hayward and Len Reimer presenting plaque to Elizabeth Job at Science Fair (May 11, 1992)
UBC 45.1/5 p	Hayward and Wellburn family (July 1993)
UBC 45.1/6 p	Hayward and students at Clarence Michiel Elementary School - Terrace (February 2, 1994) 2 views
UBC 45.1/7 p	Hayward and students at Quilchena - Richmond (November 1994) 3 views
UBC 45.1/8 p	Hayward in kitchen with family (February 12, 1995) 4 views
UBC 45.1/9 p	Hayward and students at unidentified school (October 6, 1995) 2 views
UBC 45.1/10 p	Hayward and students at Hollyburn Elementary School (n.d.) 2 views

- UBC 45.1/11 sp Hayward and students at unidentified school (January 16, 1989) 4 views
- UBC 45.1/12 p Hayward holding a copy of "Its Elementary" (ca. 1994)
- UBC 45.1/13 p Hayward in unidentified classroom (n.d.)
- UBC 45.1/14 p Hayward facing blackboard with two students at unidentified event (n.d.)
- UBC 45.1/15 p Group shot of Chemistry Dept. staff (n.d.)
- UBC 45.1/16 p Group shot of Chemistry Dept. staff (n.d.)
- UBC 45.1/17 sp Equipment at Institution of Physical Chemistry at Uppsala University, Sweden (1964/65) 5 views
- UBC 45.1/18 p Grade 7 students forming "Living Periodic Table of the chemical elements" at Crofton House during national Chemistry Week (1990)
- UBC 45.1/19 p Opening of Vernon Science and Discovery Centre (October 1990) 5 views
 Diana Prystupa - pyramid power
 Vernon Mayor Anne Clark - arch construction 2 views
 Unidentified man
 Unidentified girl
- UBC 45.1/20 p Peter Cook leading a "Do-it-Yourself" science class at unidentified school (October 16, 1990) 2 views

1-12 Miscellaneous Clippings