

MAPS FOR THE FEW

(SLIDE 1)

LADIES AND GENTLEMEN: I HAVE RECEIVED SOME INQUIRIES ABOUT THE NATURE OF THE TITLE SELECTED FOR THIS PAPER. ONE PERSON GUESSED THAT I PERHAPS WAS DESCRIBING A PROCESS WHEREBY MAPS ARE PRINTED ON BIODEGRADABLE PAPER AND THAT THIS PAPER ONLY LASTED FOR A FEW DAYS. THAT IS NOT THE CASE ALTHOUGH THIS TYPE OF FAST-ACTING BIODEGRADABLE PAPER SOUNDS LIKE A GOOD IDEA FOR SOME MAPS. THE IDEAS PRESENTED HERE ARE ESSENTIALLY PHILOSOPHICAL AND THE "FEW" IN THE TITLE REFERS, OF COURSE, TO PEOPLE. WHAT IS EXAMINED ^{here} IS THE NATURE OF THE STUDY OF CARTOGRAPHIC COMMUNICATION; WHAT THE GOALS OF THIS RESEARCH ARE AND HOW THEY ARE TO BE ACHIEVED.

I SHOULD POINT OUT THAT I AM SOMETIMES CRITICIZED FOR THINKING TOO MUCH ABOUT ISSUES WHERE OTHERS SEEM WILLING TO ACCEPT THINGS THE WAY THEY ARE ^{or the status quo.} OR FOR SEEING PROBLEMS WHERE NONE MAY EXIST. MY DEFENSE TO THIS IS THAT THERE ARE NO QUESTIONS THAT SHOULD BE GIVEN MORE THOUGHT THAN QUESTIONS PURPOSE, GOALS AND METHODOLOGY. THERE IS NO HIGHER LEVEL OF THINKING THAN TO ASK QUESTIONS OF OURSELVES SUCH AS: WHAT ARE WE DOING? BECAUSE ANSWERS TO QUESTIONS SUCH AS THESE PROVIDE US WITH A FREEDOM WE SHOULD NOT DENY OURSELVES. IF WE FAIL TO CONTEMPLATE THESE ISSUES THEN WE ARE REDUCED TO THE LEVEL OF A RAT RUNNING IN A MAZE; HAVING NO CONTROL OVER THE STRUCTURE OF THE MAZE OR WHERE IT LEADS.

DURING THE PAST QUARTER-CENTURY, CARTOGRAPHERS HAVE PLACED AN INCREASING EMPHASIS ON MAP COMMUNICATION. THIS INTEREST IN THE COMMUNICATIVE ASPECTS OF CARTOGRAPHY DEVELOPED LARGELY FROM THE REALIZATION THAT MOST MAPS

ARE MADE WITH THE OBJECTIVE OF COMMUNICATION AND THEREFORE MUST BE DESIGNED TO PROMOTE THE RAPID AND ACCURATE TRANSMISSION OF VISUAL INFORMATION. CARTOGRAPHERS, THUS, HAVE CONTINUED TO ARGUE FOR THE NECESSITY OF CARRYING ON RESEARCH IN CARTOGRAPHIC DESIGN TO IMPROVE THE VARIOUS INDIVIDUAL ASPECTS OF MAP READING.

CONCURRENT WITH THIS INCREASED INTEREST IN MAP COMMUNICATION AND DESIGN HAS BEEN THE PHENOMENAL DEVELOPMENT OF GRAPHICS. SINCE THE MID-SIXTIES WE HAVE WITNESSED WHAT MIGHT BE CALLED A "GRAPHIC REVOLUTION" WITH COLORFUL GRAPHICS APPEARING IN MAGAZINES, ENCYCLOPEDIAS AND OTHER PRINTED PUBLICATIONS. THE GRAPHIC PRINCIPLES UNDERLYING THIS DEVELOPMENT HAVE ALSO BEEN SUCCESSFULLY APPLIED TO MAPS, FOR EXAMPLE, AS ILLUSTRATIONS IN POPULAR WEEKLY MAGAZINES SUCH AS TIME. MAX HANN, CARTOGRAPHIC DIRECTOR OF KARL WENSCHOW GMBH IN GERMANY, HAS CALLED THESE MAPS DESIGNED BY GRAPHIC ARTISTS "KARTOGRAFIK" (SLIDE 2) AND NOTES THAT SUCH HIGHLY GRAPHIC MAPS ARE BECOMING INCREASINGLY POPULAR AND REPLACING TRADITIONAL CARTOGRAPHY IN MANY AREAS. HANN SUGGESTS FURTHER THAT TRADITIONAL ROAD AND LANDFORM MAPS ARE LEAVING THE LIFESTYLES OF THE GREAT MAJORITY OF PEOPLE. IF HANN IS CORRECT, THEN KARTOGRAFIK PRESENTS CARTOGRAPHERS WITH THE IRONIC SITUATION THAT, WHILE THEY ARE EMPHASIZING MAP COMMUNICATION IN THEIR RESEARCH, THEIR MAPS MAY BE COMMUNICATING TO FEWER AND FEWER PEOPLE. (SLIDE 3)

"MAPS FOR THE FEW" IS MORE THAN SIMPLY A TITLE - IT MAY REPRESENT THE STATE OF MODERN CARTOGRAPHY. IT INDICATES THAT THE PRODUCTS OF CARTOGRAPHY MAY BE INTENDED FOR USE BY VERY FEW. (SLIDE 4)

The four sections of the paper are given in this slide:

THIS PAPER ^IFIRST DISCUSSES THE PECULIAR NATURE OF THE RELATIONSHIP BETWEEN MAPS AND PEOPLE AND THEN REVIEWS SOME OF THE THOUGHTS OF MAX HANN CONCERNING CARTOGRAPHY AND KARTOGRAFIK. FINALLY, I SEE CARTOGRAPHY AS BEING FACED WITH A DILEMMA, AND A COMMENT IS MADE ON THE SPECIAL NATURE OF THE STUDY OF CARTOGRAPHIC COMMUNICATION EMPHASIZING THAT SUCH RESEARCH MUST CONTAIN A HUMAN/SOCIAL ASPECT.

(SLIDE 5)

I. MAPS AND PEOPLE: A PRECARIOUS RELATIONSHIP

FIRST OF ALL, IT SHOULD BE NOTED THAT THE RELATIONSHIP BETWEEN MAPS AND PEOPLE HAS ALWAYS BEEN A PRECARIOUS ONE. (SLIDE 6)

THE MAP CONTAINS SPATIAL INFORMATION THAT CAN BE CONVEYED IN NO OTHER WAY AND YET, EVEN IN OUR STATE OF ADVANCEMENT, WE STRIVE TO FIND WAYS OF OBTAINING SUCH INFORMATION THROUGH WAYS OTHER THAN THE MAP. THIS AVOIDANCE OF MAPS IS APPARENT AT DIFFERENT LEVELS. THE PUBLIC, FINDING MAPS TOO COMPLEX AND PERHAPS SUFFERING FROM A CERTAIN AMOUNT OF "MAP ANXIETY," HAVE VARIOUS WAYS OF AVOIDING THEM. FOR PROBLEMS OF MOVEMENT THEY RELY ON A MULTITUDE OF ROAD SIGNS AND SOME SORT OF LOGICAL SYSTEM OF ROAD DESIGNATIONS OR STREET NUMBERS. THEY OFTEN ASK DIRECTIONS BUT, MORE COMMONLY, THEY SIMPLY AVOID PUTTING THEMSELVES IN AN UNFAMILIAR PLACE. IN FACT, IT MIGHT BE ARGUED THAT AN AVOIDANCE OF MAPS RESULTS IN AN AVOIDANCE OF MOVEMENT. FOR QUESTIONS CONCERNING LOCATION AND DISTRIBUTION, MOST PEOPLE RELY ON VERBAL DESCRIPTIONS OR REMAIN UNINFORMED ABOUT EVEN VERY BASIC DISTRIBUTIONS. CARTOGRAPHERS, HAVING PERHAPS FORMED A SPECIAL RELATIONSHIP WITH THEIR PRODUCTS, OFTEN FAIL TO REALIZE THAT THERE MAY EXIST A GENUINE AVERSION TO CARTOGRAPHIC MAPS. (SLIDE 7)

II. MAX HANN: CARTOGRAPHY AND KARTOGRAFIK

IN HIS ARTICLE "GRAFIK IN DER KARTE - KARTE IN DER GRAFIK," SOME OF WHICH I HAVE TRANSLATED FROM THE GERMAN INTO ENGLISH, HANN MAKES SOME INTERESTING OBSERVATIONS ABOUT MODERN CARTOGRAPHY.

(SLIDE 3) HANN NOTES THAT THE

"...ROLE OF THE CARTOGRAPHER HAS CHANGED FROM THE EARLIER, PURE ARTISTIC TO THE TECHNICAL ARTISTIC... PAST ARTISTIC INFLUENCES ARE STILL AFFECTING THE MAP AUTHOR OF TODAY BUT MODERN CARTOGRAPHY IS MAKING ATTEMPTS TO FREE ITSELF FROM THE PAST, TRIES TO AVOID ARTISTIC SYMBOLIZATION AND MOVES TOWARDS THE OTHER EXTREME. THIS PUSH TOWARDS ABSTRACTION AND GREATER PERFECTION OFTEN DOES NOT HELP THE USER OF THE MAP. ...PEOPLE ARE TURNED OFF BY THE MODERN PRODUCTS OF CARTOGRAPHY BECAUSE THEY DON'T UNDERSTAND THEM."

HANN SUGGESTS THAT

"CARTOGRAPHERS SHOULD NOT MAKE MAPS MORE COMPLICATED SO THAT EVEN COLLEAGUES HAVE A HARD TIME INTERPRETING THEM." (HANN, PP. 142-143)

HANN PLACES THE BLAME OF MAP AVOIDANCE ON CARTOGRAPHER'S INSISTENCE ON INCREASED ABSTRACTION AND RESULTANT MAP COMPLEXITY. WE CAN SEE THIS WITH SOME SLIDES.

9) THIS IS A TWO-VARIABLE CROSS MAP PRODUCED BY THE U.S. CENSUS BUREAU. NOTE THAT THE LEGEND IS A MATRIX OF 16 COLORS

REPRESENTING EVERY POSSIBLE COMBINATION OF THE FOUR CATEGORIES INTO WHICH THE TWO SEPARATE DISTRIBUTIONS ARE DIVIDED. OLSON HAS CALLED THIS AN ABSTRACT SYMBOL SYSTEM BUT NOT BEYOND HUMAN UNDERSTANDING. THAT IS A STRANGE THING TO HAVE TO SAY ABOUT A MAP.

THE FOLLOWING MAPS ARE NOT ONLY HARD TO UNDERSTAND BUT THEY ALSO GO AGAINST SOME BASIC cartographic principles.

10) a. A MAP OF UNIVERSITY OF TORONTO LIBRARIES. AN OVER-RELIANCE ON LINES MAKES THIS MAP VERY COMPLEX.

11,12,13) McDONALD'S IN NIAGARA FALLS, NY. SAME PROBLEM. SOME POOR LETTERING DOESN'T HELP THE SITUATION.

14,15) I WAS INVITED TO ATTEND ANOTHER CONFERENCE THIS WEEK AT BROCK UNIVERSITY IN ST. CATHERINES. THIS IS THE MAP THAT WAS SENT TO ME. NEEDLESS TO SAY, I DIDN'T MAKE IT TO THIS CONFERENCE.

(slide 15A)

AS AN EXAMPLE OF KARTOGRAFIK, HANN MENTIONS THE VERY ARTISTIC LANDFORM DEPICTIONS OF BERANN.

16) THIS IS A MAP PICTURE BY BERANN OF THE AREA AROUND INNSBRUCK, AUSTRIA. THIS PERSPECTIVE PROVIDES A QUICK OVERVIEW OF THE AREA.

17,18,19) A MORE COMMON EXAMPLE OF KARTOGRAFIK IS PRESENTED IN THESE MAPS OF MUNICH DESIGNED BY HANN. NOTE THE RELIANCE ON SHAPE AND COLORS. THIS IS A SIMPLE MAP AND YET IT CONTAINS A GREAT DEAL OF INFORMATION.

20,21) EASTERN AIRLINES ROUTE SYSTEM. ABSTRACT BUT TO THE POINT - EASTERN FLIES MANY PLACES. KARTOGRAFIK MAKES USE OF SIMPLE SHAPES, MANY COLORS, NEEDS LITTLE EXPLANATION BUT CONVEYS A CONCISE MESSAGE. KARTOGRAFIK IS POPULAR CARTOGRAPHY.

(slide 22, Munich)

HANN THEN ARGUES THAT

"...WE CANNOT DISMISS THIS ~~THIS~~ (KARTOGRAFIK) AS CHEAP COMMERCIALISM AND REGARD THE RESULT OF ARTISTIC CARTOGRAPHIC WORK AS A SHORT-LIVED FAD BECAUSE WE DON'T WANT TO RECOGNIZE IT. (SLIDE 22) BECAUSE THIS PRODUCT HAS FOUND A PLACE NOT ONLY IN ADS BUT ALSO IN OTHER PRACTICAL MAPS. ...THE CARTOGRAPHER MUST REALIZE THIS SITUATION AND FIND A KEY WITHIN IT. WITH THE ADVANCEMENT OF DAILY BUSINESS LIFE, THE WILL AND ACCOMMODATION OF PEOPLE TO DECIPHER MAPS DECREASES. ...THE MODERN PERSON WANTS TO BE EASILY INFORMED OF ACTIVITIES OUTSIDE HIS INTERESTS. HE CERTAINLY DOES NOT WANT TO SOLVE PUZZLES OR DECIPHER COMPLEX MAPS. ...HE IS FULLY INFORMED WITH THE KARTOGRAFIK AND HIS INTEREST IS EXCITED AND SUPPORTED." (HANN, P. 195) (SLIDE 23)

III. THE DILEMMA

KARTOGRAFIK NOT ONLY REPRESENTS A NEW AND POWERFUL FORM OF COMMUNICATION BUT IT ALSO PRESENTS CARTOGRAPHERS CONCERNED ABOUT THE PROBLEMS OF MAP COMMUNICATION WITH AN INTERESTING DILEMMA.

(SLIDE 24) WHILE THEY CONTINUE TO FOCUS ON MAP ELEMENT CHARACTERISTICS AND PURSUE A TREND TOWARDS OBJECTIFICATION IN THE ANALYSIS OF MAP DESIGN (PETCHENIK, 1974), THE MAPS CARTOGRAPHERS PRODUCE MAY BE REACHING A SMALLER AUDIENCE. THE SITUATION IS INDEED IRONIC. AT THE SAME TIME THAT CARTOGRAPHERS EMPHASIZE THE IMPORTANCE OF COMMUNICATION, THEIR MAPS MAY BE COMMUNICATING TO FEWER AND FEWER PEOPLE.

HOW HAVE CARTOGRAPHERS GOTTEN THEMSELVES INTO THIS PRE-
DICAMENT OF EMPHASIZING COMMUNICATION AND YET SEEMINGLY COMMUNI-
CATING TO FEWER PEOPLE? THE ANSWER MAY BE FOUND IN OUR APPROACH
TOWARDS RESEARCH. AS MUEHRCKE COMMENTS:

"...IN RECENT DECADES THERE WAS A RAPID
'SCIENTIFICATION' OF DISCIPLINES MOST ASSOCIATED
WITH THE USE OF MAPS. ...EMPHASIS QUICKLY CHANGED
FROM A QUALITATIVE TO A QUANTITATIVE APPROACH WITH
THE ASSUMPTION THAT SUBJECTIVE MAP ANALYSIS IS NOT
SUFFICIENTLY RIGOROUS TO PROVIDE THE FOUNDATIONS
OF A SCIENTIFIC DISCIPLINE... . CARTOGRAPHERS HAVE
BEEN FORCED TO EVALUATE THEIR METHODOLOGY AND ADJUST
TO A MORE SOPHISTICATED APPROACH TO RESEARCH."

(MUEHRCKE, P. 2).

IN ADDITION, ONE MAY OBSERVE THAT CARTOGRAPHY HAS ALWAYS HAD A
MATHEMATICAL CHARACTER SO IT IS NOT SURPRISING THAT CARTOGRAPHERS
CHOSE A QUANTITATIVE APPROACH AND ATTEMPTED TO OBJECTIFY THE
STUDY OF MAP COMMUNICATION. MATHEMATICS HAD BEEN SO USEFUL IN
SOLVING THE PROBLEMS OF REPRESENTATIONAL CARTOGRAPHY, WHY COULD IT
NOT ALSO BE USED TO SOLVE THE PROBLEMS OF CARTOGRAPHIC COMMUNI-
CATION? THE ASSUMPTION SEEMED REASONABLE AND YET IT SEEMS TO HAVE
HAD ONE SHORTCOMING: IT OVERLOOKED THE IMPORTANCE OF PEOPLE IN THE
PROCESS OF COMMUNICATION. IN OUR PURSUIT OF OBJECTIVITY, WE SEEM
TO HAVE FORGOTTEN THE MOST IMPORTANT ELEMENT OF MAP COMMUNICATION -
THE PERSON. HOW HAVE WE FORGOTTEN THE PERSON? WE HAVE FORGOTTEN

THE PERSON IN OUR BLIND PURSUIT OF QUANTIFIABLE VARIABLES IN MAP DESIGN. THIS IS THE ULTIMATE LESSON OF KARTOGRAFIK. (SLIDE 25)

IV. ON THE SPECIAL NATURE OF THE STUDY OF CARTOGRAPHIC COMMUNICATION

PERHAPS A MISTAKE CARTOGRAPHERS HAVE MADE IS THAT THEY HAVE NOT RECOGNIZED AN IMPORTANT DICHOTOMY BETWEEN MAP CONSTRUCTION AND MAP EVALUATION. IT SHOULD BE NOTED THAT THE LATTER INVOLVES A CONCERN WITH THE MAP READER AND THEREFORE, HAS A HUMAN ASPECT. THIS HUMAN ELEMENT PERTAINS NOT ONLY TO INDIVIDUAL MAP READERS BUT TO MAP READERS IN GENERAL AND THEREFORE THE STUDY OF MAP COMMUNICATION HAS A SOCIAL CHARACTER. THE DICHOTOMY IS BETWEEN TRADITIONAL CARTOGRAPHY ON ONE SIDE - PRESENTING SPATIAL INFORMATION IN AN INTENDED READABLE FORM WITH ALL THE TRANSFORMATIONS INVOLVED IN THAT PROCESS AND ON THE OTHER SIDE - THE EVALUATION OF MAPS AND DETERMINING HOW MAPS ARE USED BY PEOPLE. FROM THIS LATTER STANDPOINT, CARTOGRAPHY MAY BE SEEN AS A HUMANISTIC/SOCIAL SCIENCE.

(slide 26) MAP COMMUNICATION PRESENTS A NEW COMPONENT TO THE FIELD OF CARTOGRAPHY - A HUMAN COMPONENT. THE STUDY OF MAP COMMUNICATION IS HUMANISTIC IN (1) BEING CONCERNED WITH THE RELATIONSHIP BETWEEN MAPS AND PEOPLE; (2) MAKING MAPS A VIABLE FORM OF COMMUNICATION; AND (3) CONVEYING A MORE COHESIVE AND UNIFIED IMAGE OF THE WORLD TO PEOPLE. THE ULTIMATE CONCERN OF THE HUMANISTIC CARTOGRAPHER ARE THE MENTAL MAPS FORMED BY PEOPLE BASED ON MAPS, AND HOW, AS A RESULT, PEOPLE VIEW THE WORLD AROUND THEM.

CARTOGRAPHY HAS THUS BOTH A SCIENTIFIC AND A HUMAN/SOCIAL CHARACTER AND THIS IS AN IMPORTANT DICHOTOMY. ORDINARILY,

(slide 27)

IT CAN ONLY BE DETRIMENTAL TO EXPOUND ON SUCH DIFFERENCES WITHIN A DISCIPLINE. THE BENEFIT ARISES IF WE RECOGNIZE THAT SUCH A DICHOTOMY MAY LOGICALLY LEAD TO A DIFFERENT APPROACH TOWARDS RESEARCH - A SEPARATE METHODOLOGY. THE QUESTION IS: HOW IS INFORMATION OBTAINED IN REGARDS TO MAP COMMUNICATION? IF WE ADMIT THAT THERE EXISTS A HUMAN/SOCIAL ELEMENT IN THIS QUESTION WHICH, OF COURSE, THERE MUST BE, THEN THE ANSWER IS NOT EASY. SOCIAL SCIENTISTS HAVE BEEN ARGUING FOR DECADES ABOUT THE CHARACTER AND LIMITATIONS OF THEIR EXPLANATORY GOALS. HOW IS INFORMATION DETERMINED IN THE SOCIAL SCIENCES?

MANY SOCIAL SCIENTISTS ARE BECOMING INCREASINGLY AWARE THAT THEIR STUDY NECESSITATES A CONCERN FOR THE SUBJECTIVE STATES OF MEN, A CONCERN WITH INTERPRETING AND UNDERSTANDING MEN'S MOTIVES AND COGNITIONS (TRUZZI, P. 1). FOR "HUMANISTIC" SOCIAL SCIENTISTS SUCH UNDERSTANDING CAN ONLY BE ACHIEVED THROUGH AN ^{empathetic} ~~EMPHATIC~~ IDENTIFICATION WITH THE VALUES AND MEANINGS EXAMINED IN THE MINDS OF PEOPLE. THIS IS THE PROCESS OF EMPATHETIC UNDERSTANDING OR VERSTEHEN (SLIDE 26) AS IT IS REFERRED TO FORMALLY. VERSTEHEN IS A GERMAN WORD WHICH IMPLIES AN UNDERSTANDING APPLICABLE PRIMARILY TO HUMAN BEHAVIOR. THE BASIC ASSUMPTION OF THIS SUBJECTIVE APPROACH IS THAT THE DATA OF THE SOCIAL SCIENCES (HUMAN MINDS) ARE GIVEN SINCE WE ARE PART OF WHAT WE PERCEIVE (TRUZZI, P. 8). TO STATE IT SIMPLY: IT IS WITHIN HIMSELF THAT THE SOCIAL SCIENTIST IS TO FIND THE KEY TO THE SOCIAL WORLD.

THE HUMANISTIC/SUBJECTIVE APPROACH IS THE OBJECT OF MUCH DEBATE IN THE SOCIAL SCIENCES AND IT IS NOT THE INTENTION HERE TO

PRESENT IT AS A METHODOLOGICAL ALTERNATIVE IN THE STUDY OF MAP COMMUNICATION. THE CONTRIBUTION OF HUMANISTIC CARTOGRAPHY IS TO PROMOTE AN UNDERSTANDING OF THE MAP USER THROUGH EMPATHETIC IDENTIFICATION. IF WE TRULY DESIRE THAT MAPS COMMUNICATE TO PEOPLE, THEN CARTOGRAPHERS MUST POSSESS AN EMPATHETIC UNDERSTANDING OF POTENTIAL MAP USERS. THIS NECESSITATES THAT WE MAKE EVERY EFFORT TO VIEW THE PROBLEMS OF MAP COMMUNICATION NOT FROM OUR OWN PERSPECTIVE, BUT FROM THE MAP READERS' FRAME OF REFERENCE; NOT FROM THE PERSPECTIVE OF HOW SOME THEORY SAYS THE INDIVIDUAL OUGHT TO PERCEIVE MAPS, BUT FROM THE POSITION OF HOW HE ACTUALLY DOES SO. ALL CARTOGRAPHIC RESEARCH INVOLVING PSYCHOPHYSICS, PATTERN RECOGNITION AND COGNITION WILL MEAN NOTHING IF WE DO NOT ALSO POSSESS AN UNDERSTANDING OF THE MAP USER. VERSTEHEN IS NOT A METHODOLOGICAL ALTERNATIVE, IT IS A METHODOLOGICAL NECESSITY IN THE STUDY OF MAP COMMUNICATION.

WHAT ARE THE LESSONS OF KARTOGRAFIK? ^(slide 29) CERTAINLY IT IS AN ARTISTIC FORM OF CARTOGRAPHY. BUT MORE THAN THAT IT IS EVIDENT THAT THE GRAPHIC ARTIST SEEMS TO HAVE THE MAP READER IN MIND WHEN HE CONSTRUCTS THE MAP AND THIS IS OFTEN NOT THE CASE IN CARTOGRAPHY.

IS THAT WE DON'T EVEN HAVE THE MAP
CT RESEARCH INTO CARTOGRAPHIC COMMUNI-
ED WITH THE SCIENTIFIC ASPECTS OF OUR
ARTISTIC, TO BE SURE, BUT MORE THAN
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ROLE IN UNDERSTANDING OUR WORLD. BUT,
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MPATHETIC UNDERSTANDING OF THE MAP USER.

WHAT IS, ^{however,} MOST DISTURBING TO M
READER IN MIND WHEN WE CONDU
CATION; WE SEEM MORE CONCERN
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LET US USE THIS UNDERSTANDING TO CREATE A NEW CARTOGRAPHY. LET US LOOK TOWARDS THE DAY WHEN MAPS WILL NO LONGER BE CONSIDERED AN ODDITY BUT RATHER A NECESSITY IN UNDERSTANDING OUR SURROUNDINGS, IN UNDERSTANDING OUR WORLD AND THUS IN UNDERSTANDING OURSELVES. MAPS CAN PLAY A VITAL ROLE IN THIS PROCESS. LET US NOT, AS CARTOGRAPHERS, DISTRACT FROM THIS ROLE.

Let me re-iterate some of the major points of this paper. At the outset I introduced the German term Kartografik to describe some highly graphic maps that are being produced. I discussed the precarious relationship between maps and people and how cartographers, because of their insistence on increased map abstraction, may be causing a greater avoidance of maps. I suggested that Kartografik presented a dilemma to cartographers interested in cartographic communication and I argued that ~~research~~ ^{such research} ~~into cartographic communication~~ has forgotten the person. I stated that the success of Kartografik is not that it is ^{merely} more artistic but ^{rather} that it reflects a greater understanding of people. I introduced the concept of a "Humanistic Cartography" and outlined its goals and argued that all research concerning map communication necessitated an empathetic understanding of the map user.

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